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**CALSPAN ON-SITE AIR BAG DEPLOYMENT INVESTIGATION
CALSPAN CASE NO. 95-2
VEHICLE: 1994 FORD F-150 PICKUP TRUCK
LOCATION: [REDACTED] MS
CRASH DATE: [REDACTED] 1994**

Contract No. DTNH22-94-D-07058

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The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points are coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

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16. Abstract <p>This on-site investigation focused on a 1994 Ford F-150 pickup truck that was equipped with a supplemental driver's side air bag system. The full frontal area of the F-150 impacted the rear of a 1988 Chevrolet Corsica in a 12 o'clock/6 o'clock configuration. The impacted crushed the front bumper of the F-150 to a maximum depth of 9.1 cm (3.6") which resulted in a CRASHPC generated velocity change of 19 km/h (12 mph). As a result of the crash, the supplemental driver's side air bag deployed.</p> <p>The driver of the Ford F-150 was a 56 year old male with a height of 180.3 cm (71.0") and a weight of 94.3 kg (208 lbs.) He was initially in a normal driving posture with the driver's seat adjusted to a rearward track position. He was not wearing the manual 3-point lap and shoulder belt system. During the crash sequence, the driver was displaced forward against, or within a close proximity to the air bag module assembly. The air bag system deployed and the module cover flaps and the deploying air bag contacted his chest resulting in multiple internal injuries. He subsequently expired upon arrival to a local hospital.</p> <p>This crash occurred on [REDACTED] 1994, however, notification was not received until [REDACTED] 1995, at which time an on-site investigation was initiated. The Chevrolet Corsica was not available for inspection. A third vehicle involved in the crash was repaired and was not inspected.</p>			
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CALSPAN ON-SITE AIR BAG DEPLOYMENT INVESTIGATION
CALSPAN CASE NO. 95-2
VEHICLE: 1994 FORD F-150 PICKUP TRUCK
LOCATION: [REDACTED] MS

SUMMARY

This on-site investigation focused on a three vehicle front-to-rear impact sequence that involved a 1994 Ford F-150 extended cab pickup truck, a 1988 Chevrolet Corsica, and a 1991 Nissan 240 SX. The Ford F-150 pickup truck was equipped with a supplemental driver's side air bag system which deployed as a result of the crash. The 56 year old male driver of the pickup truck was not wearing the manual 3-point lap and shoulder belt. He initiated a forward trajectory into the path of the deploying air bag which impacted his chest resulting multiple abrasions and contusions, bilateral rib fractures, a fractured sternum, transected aorta, pulmonary contusions, liver lacerations, and multiple internal hemorrhages. The driver expired due to these injuries on arrival to a local hospital approximately 30 minutes following the crash.

The 1994 Ford F-150 pickup truck was an extended cab model with the 1.8 m (6') cargo box on an original wheelbase chassis of 352.5 cm (138.8"). The vehicle was equipped with power windows and door locks, a 4-speed automatic overdrive transmission, cruise control, tilt steering wheel, manual 3-point lap and shoulder belts in the four outboard seated positions, center front and center rear lap belts, and the supplemental driver's side air bag system. The vehicle was identified by vehicle identification number (VIN) 1FTEX15N2RK and had an odometer reading of 19,791 km (12,298) miles at the time of the crash.

The crash occurred on a divided four lane roadway on [REDACTED], 1994, during daylight hours. The Ford pickup truck was traveling in an easterly direction on the inboard travel lane at a moderate rate of speed. The Chevrolet Corsica was traveling ahead of the pickup truck as it approached the Nissan 240 SX which was stopped in a line of standing traffic. The driver of the Chevrolet Corsica braked rapidly in an attempt to avoid the stopped Nissan. The driver of the Ford F-150 pickup truck probably braked rapidly in an attempt to avoid the Corsica. The frontal area of the F-150 pickup truck impacted the rear of the Corsica in a 12 o'clock/6 o'clock impact configuration as the vehicles continued forward. The initial impact sequence resulted in a velocity change that was below the threshold required to deploy the F-150's supplemental driver's side air bag system. The Corsica was accelerated forward by the crash and impacted the rear of a stopped 1991 Nissan. The secondary crash resulted in minor damage to the involved vehicles. The F-150 pickup truck subsequently engaged the rear of the Corsica and overrode the vehicle's rear bumper, crushing the sheetmetal area of the Corsica. It was unknown if the Ford F-150 and the Corsica separated following the initial impact sequence or if the vehicles remained engaged and continued forward. The secondary impact sequence resulted in a sufficient longitudinal deceleration which deployed the Ford F-150's supplemental driver's side air bag system.

The Ford F-150 sustained minor impact damage as a result of the front-to-rear impact sequence. Direct contact damage was 139.7 cm (55.0") in length which extended across the bumper face from headlamp to headlamp. Damage from the two impact sequences could not be separated, therefore a single crush profile was documented for the vehicle. Residual crush was 9.1 cm (3.6") located at the mid point of the front bumper. The crush profile across the full width of the bumper face was as follows: C₁ - 4.5 cm (1.75"), C₂ - 2.5 cm (1.0"), C₃ - 6.4 cm (2.5"), C₄ - 6.4 cm (2.5"), C₅ - 3.8 cm (1.5"), C₆ - 2.8 cm (1.1"). Damaged exterior components included the front bumper, plastic grille, and the right front fender. Interior damage was limited to occupant contact damage, compression of the energy absorbing steering column, and deployment of the driver's side air bag system.

The struck Chevrolet Corsica sustained moderately severe rear damage with an estimated crush depth of 30-36 cm (12-14") located at the rear bumper level. The vehicle was salvaged by the insurance company and was not available at the time of this on-site investigation. On-scene police photographs identified minor damage to the frontal area of the Corsica and minor rear damage to the rear of the struck Nissan 240 SX.

The initial impact sequence with the Chevrolet Corsica displaced the unrestrained driver of the Ford F-150 pickup truck forward against, or within a close proximity to the steering wheel and air bag module as the system. As the air bag system deployed, the air bag module cover flaps contacted the anterior chest and upper abdominal area of the driver. His plaid shirt was torn horizontally across the outer edges of the pockets at the lower third level of the pockets. The right pocket was separated from the shirt and a leather type pocket calendar was abraded by the fabric of the air bag. In addition, the driver's tee shirt was torn in the vicinity of the left pocket.

Due to the driver's forward position, the air bag had limited space to deploy. The air bag subsequently loaded against the driver and the air bag module covers. Both the upper and lower surfaces of the bag contained heavy black vinyl transfers from the interior surfaces of the flaps. The asymmetrical upper module cover flap separated from the module at the hinge point due to the inflation of the bag. This flap was not located and was assumed to be discarded at the scene of the crash. The steering wheel spokes had air bag fabric transfers on the face of the spokes adjacent to the module. The 6 o'clock sector of the bag had a pronounced fabric transfer that consisted of black, red, and blue transfers which matched the pattern of the driver's shirt. In addition, the right side of the air bag, forward of the peripheral seam, had a purplish colored fabric transfer that probably resulted from the multicolored shirt of the driver. There was no tears or tissue transfers on the air bag fabric.

The driver's forward trajectory, in combination with the expansion of the air bag between the driver and the steering wheel, compressed the energy absorbing steering column approximately 5.70 cm (2.25"). The left alloy shear bracket was displaced 0.9 cm (0.4") forward and subsequently fractured as the column was driven forward. The separation between the fracture points was 4.8 cm (1.9"). The right shear bracket remained intact and had separated 5.3 cm (2.1") from the fixed shear block. At the base of the steering column was a deformable bracket which was displaced forward

approximately 4.5 cm (1.75"). There was no damage or bending to the four spoke steering wheel which indicates that a uniform loading force was applied to the wheel. This is consistent with the loading pattern from the bag against the steering wheel spokes and the wide area of injury to the driver which extended from the umbilicus to the underside of the chin. The driver's knees contacted and scuffed the knee bolster on each side of the steering column. No injury resulted to the knees from the bolster contact.

The driver was 180.3 cm (71.0") in height with a weight of 94.3 kg (208 lbs.) The driver sustained 31 codeable injuries under the rules of the 1990 Abbreviated Injury Scale (AIS). These ranged in AIS severity from 1-5 and included multiple integumentary and internal injuries. The majority of the injuries appeared to be a direct result of the driver's involvement with the deploying air bag. The external injuries consisted of contusions across the chest and abdomen, left anterior arm, abrasions to the underside of the chin, abrasions and contusions of the anterior neck, abrasions of the tip of the nose, and a shallow laceration of the left forearm. Internal injuries consisted of a contusion and laceration of the transverse mesocolon, bilateral rib fractures 2-9 on the left and 2-8 on the right side, fracture of the sternum, a contusion of the anterior wall of the right ventricle, a transverse tear (transection) of the aorta, bilateral pulmonary contusions, and contusions and lacerations of the liver.

The driver's forehead impacted the metallic trim at the windshield header directly above the steering column. The contact dented the trim and resulted in a contusion with abrasion of the left forehead. There was also an oily smudge on the windshield directly below the forehead contact. The driver probably rebounded into the left B-pillar where he impacted the left posterior parietal region of his scalp resulting in a contusion to this region. There was no evidence of contact from the rebound trajectory of the driver.

The driver was found slumped behind the steering wheel of the pickup truck and was removed from the vehicle by a passing motorist and placed on the edge of the road. He was subsequently transported to a local hospital where he expired approximately 30 minutes following the crash.

The family of the driver noted that he had gallbladder surgery on [REDACTED] 1994, and was involved in a head-on crash with a similar 1994 Ford F-150 pickup truck on [REDACTED] 1994. This crash resulted in severe frontal damage to the vehicle which was written off as a total loss by the insurance company. The F-150 was equipped with an air bag which deployed in that crash. They stated that the driver was not belted during the [REDACTED] crash due the abdominal discomfort that he was experiencing from the surgery. He did sustain several contusions and abrasions of the forearms from the air bag in the crash, however, the air bag prevented him from additional injury. He reportedly exited his vehicle and assisted in directing traffic at the site of the [REDACTED] crash. The driver allegedly purchased the second Ford F-150 (replacement) pickup truck because of the safety benefits of the driver's side air bag system.

CALSPAN ON-SITE AIR BAG DEPLOYMENT INVESTIGATION
CALSPAN CASE NO. 95-2
VEHICLE: 1994 FORD F-150 PICKUP TRUCK
LOCATION: [REDACTED] MS

CRASH DATA

Location: U.S. Route on an approach to an intersection

City/Location: [REDACTED] MS

Area/Type: Urban/Commercial

Crash Date/Time: [REDACTED], [REDACTED] 1994, daytime hours

Investigating Police Agency: [REDACTED] Police Department

Crash Type: Car/Car, front-to-rear impact configuration

Air Bag Driver Injury Severity: Fatal (AIS-5)

AMBIENCE

Viewing Conditions: Daylight

Weather: Clear

Precipitation: None

Road Surface: Dry

HIGHWAY

Type: U.S. Route

Number of Lanes: Four, divided

Surface: Asphalt

HIGHWAY (CONT'D.)

Median:	Grass
Edge:	Curbed with parking lot adjacent to the outboard edge
Vertical Alignment:	Level
Horizontal Alignment:	Straight
Estimated Coefficient of Friction:	.75
Traffic Density:	Moderate to heavy

VEHICLES

	<u>Air Bag Vehicle</u>	<u>Vehicle #2</u>
Description:	1994 Ford F-150, 4 x 2 pickup truck with Super (extended) Cab, 353.1 cm (139.0") wheelbase	1988 Chevrolet Corsica, 4 dr. sedan
V.I.N.:	1FTEX15N2RK	Unknown (not inspected)
Color:	Maroon	Beige
Odometer:	19,791.2 km (12,298 miles)	
Engine:	5.0 liter, V-8	
Transmission:	4-speed automatic overdrive, column mounted transmission selector lever	
Steering:	Power-assisted with tilt wheel	
Brakes:	Power-assisted front disc, rear drum with rear anti-lock (ABS)	
Manual Restraints:	3-point lap and shoulder belts in the front and rear outboard seated positions, center lap belts	

VEHICLES (CONT'D.)

Air Bag Vehicle

Vehicle#2

Automatic Restraints: Supplemental Restraint System (SRS) which consisted of a driver's side air bag system which deployed as a result of the vehicle's impact with the rear of vehicle #2

Tow Status: Towed due to damage

Towed due to damage

Vehicle #3

Description: 1991 Nissan 240 SX,
2 dr. hatchback

V.I.N.: Unknown, not inspected

Color: Black

Tow Status: Towed due to damage

VEHICLE DAMAGE

Air Bag Vehicle

Vehicle #2

Exterior: The 1994 Ford F-150 pickup sustained minor frontal damage from its impact sequence with the rear of vehicle #2. Maximum crush was 9.1 cm (3.6") located at the mid point of the front bumper face below the rub strip, behind the plastic license plate frame. The direct contact damage width was 139.7 cm (55.0") which extended across the bumper and grille from headlamp-to-headlamp. The direct contact damage consisted of abrasions on the bumper rub strip and cracks across the full width of the plastic grille. The combined induced and direct contact damage width was 182.2 cm (71.8") which extended

The Chevrolet Corsica sustained moderately severe damage that was distributed across the rear plane of the vehicle. Maximum crush was estimated at 30-36 cm (12-14") on the rear bumper approximately 30 cm (12") right of center from the on-scene police photographs. In addition to the bumper crush, the face of the trunk lid was displaced approximately 20 cm (8") forward from the 6 o'clock impact force.

Damaged components included the rear bumper assembly, trunk lid, both

VEHICLE DAMAGE (CONT'D.)

Air Bag Vehicle

Vehicle #2

Exterior (Cont'd.):

across the full width of the bumper. Crush values were measured at bumper level and were as follows: C₁=4.5 cm (1.75"), C₂=2.5 cm (1.0"), C₃=6.4 cm (2.5"), C₄=6.4 cm (2.5"), C₅=3.8 cm (1.5"), C₆=2.8 cm (1.1").

Damaged components consisted of the front bumper, bumper rub strip, grille, right headlamp bezel, and the right front fender and door. The right front fender was displaced rearward by the impact forces. During the extrication of the driver, rescue personnel opened the right door and the leading edge of the door contacted and deformed the trailing edge of the fender. In addition, the leading edge of the right door was damaged.

taillamp lenses, the quarter panels, and the backlight glazing.

The frontal area of the Chevrolet Corsica impacted the rear of the stopped Nissan which resulted in minor damage to the grille, headlamps, and hood.

CDC:

12-FDEW-1

06-BDEW-2
12-FDMW-1

Vehicle #3

The rear of the Nissan 240 SX minor damage from its impact sequence with the Chevrolet Corsica. Direct contact damage was distributed across the rear bumper fascia of the Nissan. There was no damage to the taillamp lenses or hatchback of the vehicle.

CDC:

06-BDEW-1

VEHICLE DAMAGE (CONT'D.)

Interior (Air

Bag Vehicle): The interior of the 1994 Ford pickup truck sustained moderate damage that was associated with air bag deployment and driver contact. There was no intrusion or damage related to the exterior deformation. Damage related to the deployment of the air bag is addressed in the section which follows entitled "Automatic Restraint System".

The driver's left knee contacted the mid instrument panel at the base of the vent louver and the fuse box cover that was incorporated into the knee bolster. The knee contact scuffed the components 64.1-71.1 cm (25.25-28.0") left of the vehicle's centerline and 17.1-20.3 cm (6.75-8.0") below the chrome trim which separated the mid and upper instrument panels. His right knee scuffed the knee bolster 25.4-30.5 cm (10.0-12.0") left of the centerline and 20.3-22.9 cm (8.0-9.0") below the referenced trim strip. There was no internal damage to the bolster as documented in Photograph No. 21 of Attachment B.

The driver was positioned against or within a close proximity of the air bag module as the SRS deployed. His loading force in response to the frontal impact sequence and the subsequent expansion of the air bag between the driver and the steering assembly resulted in compression of the energy absorbing steering column. The left side shear bracket was displaced 0.95 cm (0.375") forward, however, the alloy shear bracket fractured as the column continued forward. The right shear bracket remained intact and disengaged 5.4 cm (2.125") from the block. The energy absorbing steering column consisted of a deformable bracket that was identified by the following Ford Part No.: [REDACTED]

The deformable bracket was displaced approximately 4.4 cm (1.75") forward. The shear capsule separation/compression and the deformable bracket displacement are depicted in Photograph Nos. 42-44 of Attachment B.

The driver's left hand probably impacted the radius of the upper instrument panel directly forward of the steering assembly. A vertically orientated gouge mark (possible ring contact) was located on the panel 59.7-63.5 cm (23.5-25.0") left of the vehicle's centerline. In addition, the driver's forehead area impacted the windshield header, windshield, and possibly the leading edge of the left sunvisor. A small diameter dent that was approximately 1.6 mm (0.0625") in depth evidenced the head contact to the metal header trim panel. The dent was located 43.2-45.7 cm (17.0-18.0") left of the centerline. Located directly below the header contact point was an oily smudge (probable skin oil) on the windshield that was located 41.3-45.7 cm (16.25-18.0") left of center and 2.5-7.0 cm (1.0-2.75") below the header.

VEHICLE DAMAGE (CONT'D.)

Interior (Air

Bag Vehicle): The left sunvisor was probably contacted by the driver's forehead or the anterior aspect of his scalp. There was no compression of the visor, however, its location with respect to the header contact point presented itself as a probable contact point. There appeared to be a faint scuff/transfer (possible tissue transfer) on the sunvisor in Photograph No. 15 that was located above the header contact point and to the left of the elastic band. It should be noted that this scuff did not appear visible during our inspection of the vehicle which occurred on [REDACTED] 1995.

The rear view mirror was found to be displaced in an upward direction and to the right which possibly resulted from driver right hand/arm contact. There was no damage to the mirror glass or to the frame of the mirror assembly. The driver sustained soft tissue injuries of the scalp over the left posterior and parietal areas. Although no direct contact evidence was visible within the vehicle, the driver possibly rebounded into the left B-pillar mounted D-ring for the driver's side manual restraint system.

AUTOMATIC RESTRAINT SYSTEM

The 1994 Ford F-150 pickup truck was equipped with a driver's side air bag Supplemental Restraint System (SRS) which deployed as a result of the Ford's frontal impact sequence with rear of vehicle #2. The SRS consisted of two front mounted crash sensors, an instrument panel mounted safing sensor and diagnostic module, the steering wheel mounted air bag module and clockspring switch, and the instrument cluster mounted air bag system indicator lamp. The front crash sensors, safing sensor, and the diagnostic module were not damaged as a result of the crash. The driver's air bag module, however, was damaged as a result of SRS deployment.

The air bag module consisted of an asymmetrical flap design which opened at the designated tear points in an H-configuration. The large upper flap was separated from the module at the upper hinge point and was not within the vehicle at the time of Calspan's inspection of the pickup truck. Previous investigations of Ford product vehicles have indicated that the upper flap has a horizontal width of 20.3 cm (8.0") and a height of 12.4 cm (4.875"). The lower module cover flap was intact and had respective measurements of 20.3 cm (8.0") and 3.8 cm (1.5").

The air bag was constructed of a woven nylon fabric with a neoprene type liner and was approximately 61.0 cm (24.0") in diameter in its deflated state. The air bag was tethered by four internal tether straps which extended from a 16.5 cm (6.5") diameter reinforcement that was sewn to the center of the bag with two rows of external stitching. The peripheral seam of the air bag was an internal seam and was sewn with an internal and external row of stitching. The bag was vented by two vent ports that were approximately 3.2 cm (1.75") in diameter and were located on the back side of the bag at the 11:30 and 01:30 o'clock positions.

AUTOMATIC RESTRAINT SYSTEM (CONT'D.)

The driver of the vehicle was in a forward position either against or within a close proximity of the air bag module as the SRS deployed. This forward position of the driver restricted the deployment of the air bag as upper module cover flap contacted his chest. The expanding air bag subsequently pushed against the interior surfaces of the cover flaps and the side surfaces of the backer plate for the gas generator. As a result of bag expansion between the driver and the steering wheel mounted module assembly, the upper module cover flap separated from the module at the upper hinge point. The separated cover flap was not within the vehicle at the time of our inspection and was assumed to have been discarded at the scene of the crash. Black vinyl transfers at the 12 o'clock position of the air bag evidenced the interaction between the bag and the cover flap (refer to Photograph Nos. 27-29). The interior aspect of the lower module cover flap contained a patterned air bag fabric transfer with a corresponding black vinyl transfer on the bag fabric at the 6 o'clock sector located between the peripheral seam and the gas generator. In addition, patterned air bag fabric transfers were noted to the inboard aspect of the upper left steering wheel spoke at the horn button and to both lower spokes of the four spoke wheel. The expanding air bag also deformed the lateral brackets of the air bag module backer plate and displaced and fractured the plastic cruise control switches that were mounted between the spokes of the steering wheel. There were no tears, rips, or snag points to the woven fabric of the air bag.

A black vinyl transfer was noted to the right side surface of the bag and was located forward of the peripheral seam. The transfer began 10.2 cm (4.0") below the right vent port and extended approximately 30.4 cm (12.0") downward and 6.4-15.2 cm (2.5-6.0") forward of the seam toward the generator. There were color transfers from the driver's plaid shirt on the air bag at the 3 and 6 o'clock sectors. A large purplish transfer was located on the right side of the air bag which began 22.2 cm (8.75") below the right vent port and extended downward approximately 22.9 cm (8.75"). The upper edge of the transfer was 4.4-12.1 cm (1.75-4.75") forward of the peripheral seam while the lower edge began at the seam and extended 10.2 cm (4.0") forward. In addition, there was a patterned blue, red, and black shirt fabric transfer on the air bag at the 6 o'clock position. The vertically orientated transfer (refer to Photograph No. 24) was located 4.4 cm (1.75") forward of the peripheral seam and was 7.0 cm (2.75") in height and 9.5 cm (3.75") in width.

MANUAL RESTRAINT SYSTEM

The Ford pickup truck was equipped with 3-point lap and shoulder belts at the four outboard seated positions and lap belts at the center front and center rear positions. The vehicle was occupied by a single occupant, therefore this section focuses solely on the manual belt system for the driver's position.

The belt system consisted of a continuous loop webbing that extended from a B-pillar mounted inertia reel retractor, through a B-pillar mounted D-ring (upper pivot point), and anchored to the sill of the vehicle forward of the B-pillar. The exposed D-ring was chrome plated while the anchorage bolt and pivot point were covered with a snap-on type plastic cap which remained in place during the crash. A sliding latchplate was positioned on the webbing on the downstream side of the D-ring. The male

MANUAL RESTRAINT SYSTEM (CONT'D.)

tab of the latchplate yielded several faint wear marks (scratches) which indicated that the belt system had been worn on occasions prior to this crash. The latchplate was stamped with identification number [REDACTED]. At the time of Calspan's inspection of the vehicle which occurred approximately 4.5 months after the crash, the latchplate was found adjusted to a position that was approximately 10.2 cm (4.0") below the D-ring and 99.1 cm (39.0") above the floor anchorage point.

The belt webbing was in new condition with no evidence of occupant loading or transfers from the air bag module cover flaps or bag fabric. Based on the interior contact points within the vehicle and the lack of loading evidence on the belt system, it was determined that the driver was not wearing the manual restraint system at the time of the crash. Family members stated that the driver was a dedicated belt user, however, they confirmed the lack of belt usage during this crash by the driver at a discussion which transpired following the vehicle inspection. They noted that the driver had undergone gallbladder surgery on [REDACTED] 1994, and that the surgery produced abdominal discomfort. In addition, the discomfort was enhanced by the manual seat belt in the pickup truck. The driver was involved in a severe head-on crash with a similar 1994 Ford F-150 pickup truck on [REDACTED], 1994. He was not belted during that crash and attributed his injury mitigation to the driver's side air bag which deployed. The involved pickup truck was considered a total loss by the insurance company, therefore the driver replaced the vehicle with this accident involved F-150 pickup truck. The family members noted that the abdominal discomfort persisted throughout the month of this accident and that the driver refrained from using the manual belt system to alleviate the discomfort while driving.

VEHICLE VELOCITY ESTIMATES

	<u>Air Bag Vehicle</u>	<u>Vehicle #2</u>
Total Delta V:	19 km/h (12 mph)	30 km/h (18 mph)
Longitudinal Delta V:	-19 km/h (-12 mph)	30 km/h (18 mph)
Lateral Delta V:	0 km/h (0 mph)	0 km/h (0 mph)
Energy Absorption:	26,414 joules (19,480 ft-lb)	49,169 joules (36,260 ft-lb)

COLLISION SEQUENCE

Pre-Crash: The crash occurred on the inboard eastbound travel lane of a four lane divided roadway on an approach to an intersection in a 64 km/h (40 mph) speed zone. Eastbound traffic flow had reportedly backed-up for the intersection. Vehicle #3, the 1991 Nissan 240 SX, was stopped on the inboard travel lane for standing eastbound traffic. Vehicle #2, the 1988 Chevrolet Corsica was traveling eastbound on the inboard travel lane as it approached the rear of the stopped Nissan. The air bag equipped Ford F-150 was traveling eastbound and was following the Chevrolet Corsica on the inboard travel lane. The Corsica and the F-150 pickup truck probably approached the impending crash site at similar speeds as the vehicles were traveling in an area of moderate-to-heavy traffic volume. The driver of vehicle #2 apparently failed to detect the stopped Nissan in sufficient time to safely stop her vehicle behind the Nissan. She applied a rapid braking force in an attempt to avoid contact as the Corsica continued forward in a tracking mode. The driver of the Ford F-150 pickup truck subsequently braked rapidly in an attempt to avoid contact with the Corsica. The on-scene police photographs of the crash site did not yield evidence of locked wheel skidding from the Chevrolet Corsica. The Ford F-150 was equipped with rear anti-lock (ABS) brakes which would have contributed to maintaining a tracking orientation of the vehicle under heavy braking. The police photographs were inadequate to identify the level of braking by the driver of the Ford pickup truck.

Crash: The investigating police officer reported that the Chevrolet Corsica initially impacted the rear of the stopped Nissan 240 SX and that the Ford F-150 subsequently impacted the rear of the Corsica. Based on a review of the on-scene police photographs of the Corsica and the Nissan 240 SX, which are included as Attachment A of this report, a thorough inspection of the Ford F-150 pickup truck, and reconstruction of the driver's kinematics based on contact evidence and injury data, a more complex crash occurred involving the three vehicles.

The driver of the Chevrolet Corsica was braking and decelerating her vehicle in an attempt to avoid impact with the stopped Nissan 240 SX. The driver of the Ford F-150 pickup truck, which was initially traveling at a speed similar to the Corsica, detected the braking efforts by the driver of the Corsica and probably applied a rapid braking force in an attempt to avoid impact with the Corsica. The pickup truck's subsequent braking effort allowed the F-150 to close the gap distance between the two vehicles. The Corsica had been under a braking force for a longer time frame, therefore the vehicle had probably decelerated to a lower speed than the pickup truck.

The front bumper of the F-150 pickup truck initially impacted the rear bumper of the Corsica in a 12 o'clock/6 o'clock impact configuration. As a result of the initial impact, both bumpers deformed and the right bumper bracket of the F-150 dented the rear bumper of the Corsica at a location that was outboard of the right backup light lens. The impact resulted in a longitudinal velocity change to the pickup truck that was below the required threshold for air bag deployment. In addition, the impact probably accelerated the Corsica to the speed of the F-150 pickup truck as the two vehicles continued forward. It was unknown if the vehicles remained engaged or separated following the impact sequence. This initial impact sequence displaced the driver of the Ford F-150 forward and possibly reduced his braking effort.

COLLISION SEQUENCE (CONT'D.)

Crash (Cont'd.):

The driver of the Chevrolet Corsica continued to brake following the initial impact. Her vehicle subsequently impacted the rear of the Nissan 240 SX in a 12 o'clock/6 o'clock impact configuration. The front bumper of the Corsica underrode the rear bumper of the Nissan which allowed the Corsica's headlamp and grille area to impact the rear bumper fascia of the Nissan and the hood face of the Chevrolet to contact the filler panel of the Nissan between the reflective lens and the bumper fascia. Residual damage was minimal, however, the impact probably compressed the Nissan's energy absorbing bumper.

The impact probably displaced the Nissan forward as the Ford F-150 pickup truck subsequently engaged with the rear of the Corsica. This secondary impact resulted in an override configuration as the F-150's front bumper impacted the taillamp and sheetmetal area above the Corsica's rear bumper and the grille area engaging with the face of the trunk lid. (It was possible that the bumpers initially engaged prior to the override sequence). The vertical member of the F-150's plastic grille contacted the face of the trunk lid and dented the trunk lid right of the key lock mechanism while the right grille and headlamp area engaged with the right side of the trunk lid at the Corsica name tag. This contact dented the trunk face and cracked the right vertical aspect of the headlamp bezel and buckled the right front fender of the pickup truck. The horizontal crease along the top surface of the trunk (Photograph Nos. 5 & 6 of Attachment A) resulted from engagement with the top surface of the F-150's grille and bug shield.

As a result of the secondary impact sequence between the Corsica and the Ford F-150 pickup, the supplemental driver's side air bag system of the F-150 deployed. The specific damage that resulted from each of the two impacts could not be separated from the overall damage patterns, therefore velocity changes were computed by the CRASHPC program based on these overall damage patterns. The damage mode of CRASHPC generated velocity changes of 19 km/h (12 mph) for the Ford F-150 and 30 km/h (18 mph) for the Chevrolet Corsica. It should be noted that these velocity estimates were based on the actual documented crush profile of the F-150 and an estimated crush profile for the Corsica. The time sequence between the two impacts with the F-150 and the Corsica could not be accurately determined, however, it was brief as the driver was displaced forward, either against or within a close proximity to the air bag module as the SRS deployed.

Post-Crash: The driver of the Nissan 240 SX brought his vehicle to a controlled stop within the inboard eastbound travel lane forward of the point of impact with the Corsica. He was reported as belted and not injured. The Corsica came to rest centered within the inboard eastbound travel lane at or near its impact location with the Nissan. Final rest was determined by the position of the vehicle in relation to debris visible on the road surface in Photograph No. 7 of Attachment A. The female driver of the Chevrolet Corsica was reported as belted with a complaint of pain from the impact sequences. The driver of the Ford F-150 pickup truck sustained multiple internal injuries and was found slumped behind the steering wheel of his vehicle by a passing motorist. He was removed from the vehicle and placed on the median. Rescue personnel subsequently responded to the crash scene and transported the driver of the F-150 pickup truck to a local hospital where he expired.

HUMAN FACTORS/OCCUPANT DATA

Air Bag Vehicle

Driver: 56 year old male
Height: 180.3 cm (71.0")
Weight: 94.3 kg (208 lbs.)
Manual Restraint
System Usage: None, 3-point lap and shoulder belt was available
Usage Source: Vehicle inspection, police report, interview with family members
Eyewear: Prescription eyeglasses, separated from face during crash and were not damaged
Vehicle Familiarity: 3-4 months
Route Familiarity: Unknown
Trip Plan: Business related
Mode of Transport
From Scene: Ambulance
Type of Medical
Treatment: Transported to a local hospital where he expired

DRIVER INJURIES

INJURY	SEVERITY	SOURCE
Contusion hemorrhage of the transverse mesocolon, 10 x 8 cm with 2 cm laceration and in the mesentery, 12 x 6 cm	Moderate (542010.28 542022.28)	Deploying air bag
2-9 ribs are fractured anteriorly and anterolaterally on the right side and 2-8 ribs fractured on left anterolaterally, left pleural space contains 1600 ml of blood	Critical (450242.53)	Module cover flaps and the deploying air bag
Sternum fracture at second intercostal level with hemorrhage at the fracture lines	Moderate (450804.24)	Upper air bag module cover flap
Contusion of tissue and subcutaneous tissue of the right forearm from wrist to elbow, 21.6 x 7.0 cm (8.5 x 2.75")	Minor (790402.11)	Expanding air bag

Contusion hemorrhage in anterior wall of right ventricle at the base 3 x 1 cm x 0.6 cm deep affecting the epicardial fat and extending into the underlying muscle in a diffuse pattern 4 x 3 cm where there are patchy hemorrhages extending to the endocardium	Severe (441006.44)	Upper air bag module cover flap
Transverse tear of the aorta (transected) 5 mm distal to the left subclavian branch totally around the circumference 5.3 cm, with an opening in the left side of the mediastinum 2.5 x 2 cm	Critical (420210.54)	Upper air bag module cover flap
Contusion hemorrhages of the lungs, left extending into lung tissue superficially 1 cm, covering an area 6 cm in diameter on left, 5 cm on the right	Severe (441410.43)	Upper air bag module cover flap and the deploying air bag
Contusion hemorrhages of the inferior capsule of the liver on both sides adjacent to the caudate and lobe and inferior right lobe	Moderate (541810.21)	Upper air bag module cover flap and the deploying air bag
Small tears of liver tissue 3 and 2 cm with hemorrhage into the adrenal glands	Moderate (541822.22)	Upper air bag module cover flap and the deploying air bag
Contusion hemorrhage with overlying abrasion of left forehead 7.6 x 4.4 cm (3 x 1.75") with adjacent abrasion on left cheek 2.5 x 0.6 cm (1 x 0.25")	Minor (290402.17, 290202.12)	Air bag
1.5 cm abrasion to the tip of the nose	Minor (290202.14)	Air bag
Hemorrhages present in the deep layers of the scalp, multiple contusions and abrasions of scalp	Minor (190402.10, 190202.10)	Probable rebound contact into the left B-pillar
Contusion over the left posterior parietal region of scalp 2.5 x 1.3 cm behind the ear canals centered 2.5 cm to left of superior midline, 2.5 x 0.6 cm in diameter with dark contusion hemorrhage in the skin and subcutaneous tissues	Minor (190402.16)	Probable rebound contact into the left B-pillar

Hemorrhages in the deep tissue of the neck along left carotid sheath, multiple contusions and abrasions of neck	Minor (390402.15, 390202.15)	Air bag
Contusion hemorrhage in the adrenal glands	Minor (540210.19)	Upper air bag module cover flap and the deploying air bag
Contusion over the sternum, 12.7 x 8.9 cm (5 x 3.5")	Minor (490402.14)	Upper air bag module cover flap
Band of contusion across upper abdomen from the umbilicus upward 7.6-10.2 cm wide extending from right axillary line to the left mid clavicular line reaching the costal margins, but not affecting lower abdomen	Minor (590402.17)	Lower module cover flap and the deploying air bag
5.1 cm abrasion under chin	Minor (290202.18)	Air bag
Abrasion over left chest area 3.8 cm down left chest across the costal margin (12.7 x 5.1 cm) and on the anterior right lower chest at the costal margin (7.6 x 5.1 cm)	Minor (490202.12)	Upper air bag module cover flap and the deploying air bag
5.1 cm (2") contusion of right lower anterior chest	Minor (490402.11)	Upper air bag module cover flap and the deploying air bag
7.6 x 5.1 cm contusion of left anterior arm onto medial aspect	Minor (790402.12)	Deploying air bag
Contusion with abrasion on the anteriomedial aspect of the right thigh, diagonal (12.7 x 7.6 cm)	Minor (890402.11, 890202.11)	Lower steering wheel rim
1.3 cm contusion on medial right lower thigh	Minor (890402.11)	Lower steering wheel rim
1.3 cm contusion medial left upper thigh	Minor (890402.12)	Lower steering wheel rim
Shallow laceration of left forearm on the posteromedial aspect 10.2 cm above elbow 1.3 x 0.2 cm in width with 3.8 x 1.3 cm abrasion	Minor (790602.12, 790202.12)	Deploying air bag (possible)

DRIVER KINEMATICS

The driver of the 1994 Ford F-150 pickup truck was a 56 year old male with a reported height of 180.3 cm (71.0") and weight of 94.3 kg (208 lbs.). Based on contact evidence within the vehicle, the driver was probably in a normal driving posture prior to impact. The driver's seat track was adjusted 2.5 cm (1.0") forward of the full rearward position and the tilt steering wheel appeared to be adjusted to the center position. Family members stated that the driver of the F-150 had gallbladder surgery on [REDACTED], 1994, and that he was experiencing continued discomfort in the abdominal area, therefore he elected not to wear the manual 3-point lap and shoulder belt system to alleviate the belt pressure across his abdomen. They further reported that the driver was involved in a severe head-on crash with a similar 1994 Ford F-150 pickup truck on [REDACTED] 1994. He was not restrained by the manual belt system, however, the supplemental driver's side air bag system deployed which prevented the driver from possible serious injury. The involved pickup truck was considered a total loss and was replaced by this accident involved vehicle.

As stated in the crash phase of the Collision Sequence of this report, the driver was in a forward position with his chest within a close proximity, or against the air bag module cover as the SRS deployed. The initial impact with the rear of the Chevrolet Corsica displaced the driver forward, however, the impact was not of sufficient magnitude to deploy the driver's side air bag system. The driver remained in the forward position as the Ford F-150 engaged with the rear of the Corsica, which resulted in a velocity change that was sufficient to deploy the air bag system.

As the air bag system deployed, the air bag module cover flaps contacted the driver's chest as he initiated a forward trajectory in response to the impact force and loaded against the module cover and steering assembly. The driver's knees contacted and scuffed the knee bolster and the left mid instrument panel. No injury resulted from the bolster contact. His forward and upright position momentarily restricted the normal deployment pattern of the air bag as the bag inflated against the module assembly. This was evidenced by the air bag fabric transfers on the inside surface of the lower cover flap with corresponding black vinyl transfers on the bag from the upper and lower flaps, complete separation of the upper flap at the hinge point, and transfers on the left horn button and steering wheel spokes.

The driver's loading force against the steering assembly and the air bag module, in combination with the deploying air bag expanding against his chest, produced compression of the energy absorbing steering column. The deformable bracket of the energy absorbing column was displaced 4.4 cm (1.75") forward. Compression of the steering column resulted in complete separation of the shear capsules. The left side alloy bracket fractured and the right had separated 5.4 cm (2.1").

The horizontal edge of the asymmetrical (H-configuration) upper module cover flap and the expanding air bag impacted the mid thoracic area of the driver. The flap and air bag tore the driver's shirt in a horizontal pattern as it opened in an upward direction. The tear extended across the shirt for approximately 35.6 cm (14.0") at the lower third level of the pockets. The right pocket was completely separated from the shirt. The black, red, and blue colors of the driver's plaid shirt

DRIVER KINEMATICS (CONT'D.)

transferred on the air bag at the 6 o'clock sector (refer to Photograph No. 24). In addition to the shirt damage, the driver had a leather bound pocket calendar in one of the shirt pockets. The side of the leather calendar that was exposed to the air bag had a white transfer from the air bag fabric that was both patterned and irregular (refer to Photograph Nos. 54 and 55 of Attachment B). Fabric fibers from the driver's plaid shirt were embedded into the leather calendar in the area of the air bag transfer. The driver's T-shirt was also torn in an irregular pattern over the left chest area.

The initial impact from the upper module cover flap and the expanding air bag produced an area of contusion that measured 12.7 x 8.9 cm (5.0 x 3.5") over the sternum, multiple abrasions and contusions across the chest, a fracture of the sternum at the second intercostal space, multiple bilateral rib fractures, a transverse tear (transection) of the aorta, a contusion hemorrhage of the right ventricle, bilateral pulmonary contusions, contusions and lacerations of the liver, and contusions of the adrenal gland. The lower module cover flap in combination with the expanding air bag produced a band of contusion across the upper abdomen, a contusion of the transverse mesocolon, and a laceration of the mesentery.

Due to the driver's forward position, the expanding air bag separated the upper module cover flap at the upper hinge point. The bag subsequently contacted the driver's neck and face producing multiple contusions and abrasions of the neck, an abrasion to the under side of the chin, an abrasion to the tip of the nose, and abrasions of the left face and forehead. In addition, the expanding air bag probably displaced the driver in an upward and rearward direction. His forehead or anterior scalp contacted the windshield and the header trim directly above the steering assembly. An oily smudge evidenced the windshield contact while a small diameter dent evidenced the header contact. His upward trajectory allowed his thighs to contact the lower steering wheel rim which resulted in bilateral contusions to the anterior and medial aspects of the thighs.

The driver's arms were subsequently contacted by the expansion of the air bag. As a result, he sustained a large area of contusion to the right forearm, a contusion of the anterior aspect of the left arm, and a laceration with abrasion of the left forearm.

The driver was displaced rearward into the left seat back by rebound and expansion of the air bag system. Although not supported by direct contact evidence, the left posterior aspect of the driver's scalp probably impacted the left upper B-pillar during his rebound trajectory. The autopsy report identified an area of contusion and abrasion over the left posterior parietal region of his scalp with hemorrhages present in the deep layers of the scalp. The location and contusion injuries supports an impact that probably resulted from the rebound trajectory.

The driver was reportedly found by a passing motorist slumped behind the steering wheel of the vehicle. He was removed from the vehicle and placed on the median. Rescue personnel subsequently transported him to a local hospital where he expired following arrival.

ATTACHMENT A

On-Scene Police Photographs



1. Lookback view of the crash site.



2. Frontal damage to the Ford F-150 pickup truck.



3. Overall view of the Ford's interior and the deployed driver's side air bag.



4. Close-up view of the deployed air bag and the separated upper module cover flap.



5. Rear damage to the Chevrolet Corsica.



6. Close-up view of the rear damage to the Corsica.



7. Approximate final rest position of the Chevrolet Corsica.



8. Frontal damage to the Corsica from secondary contact with the Nissan 240 SX.



9. Rear damage to the bumper fascia of the Nissan 240 SX.

ATTACHMENT B

Selected Color Photographs



1. Frontal view of an exemplary 1994 Ford F-150 Super Cab pickup truck.



2. Profile view of the exemplary vehicle.



3. Frontal damage to the involved 1994 Ford F-150 pickup truck.



4. Left front three-quarter view.



5. & 6. Profile views at the left front corner documenting the extent of crush.



7. Left side view of the Ford F-150 pickup truck.



8. Left rear three-quarter view.



9. Right rear three-quarter view.



10. Right side view and displacement of the right front fender.



11. & 12. Profile views at the right front corner documenting the extent of crush.



13. Right front three-quarter view.



14. Vehicle identification label on the left B-pillar.



15. Overall view of the driver's trajectory and contact points.



16. Driver's knee contacts to the bolster and mid instrument panel.



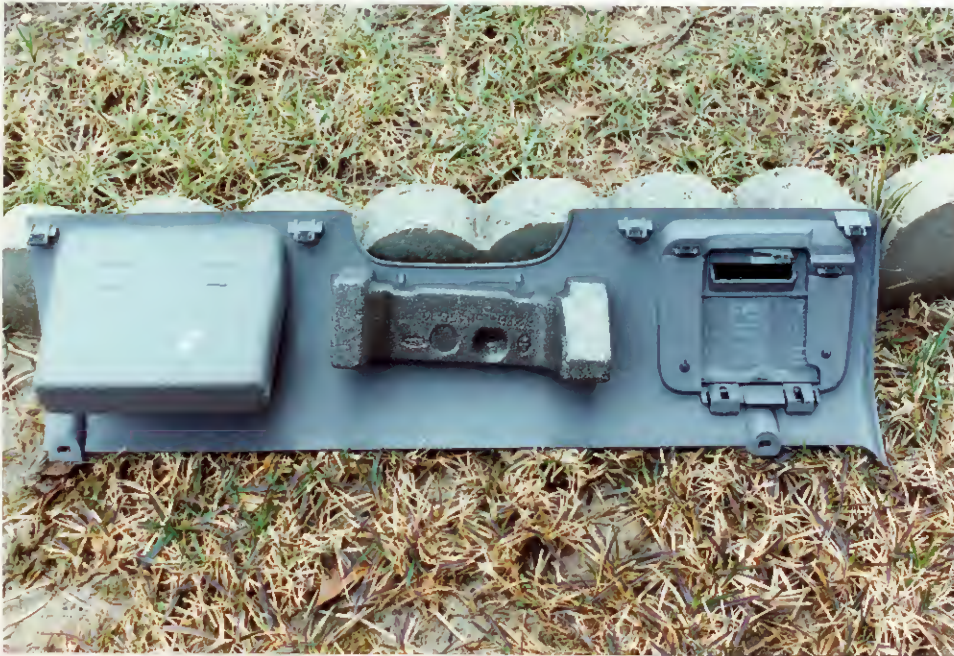
17. & 18. Close-up views of the left knee contact.



19. Right knee contact (scuff) to the bolster.



20. Bolster removed from vehicle.



21. Back side of bolster, no damage.



22. Deployed driver's side air bag.



23. Black vinyl transfers at the 6 o'clock sector from the lower module cover flap.



24. Driver's shirt fabric transfers on the air bag at the 6 o'clock sector.



25. Fabric transfers on the right side of the air bag forward of the peripheral seam.



26. Black vinyl transfers at the 12 o'clock sector from the upper module cover flap.



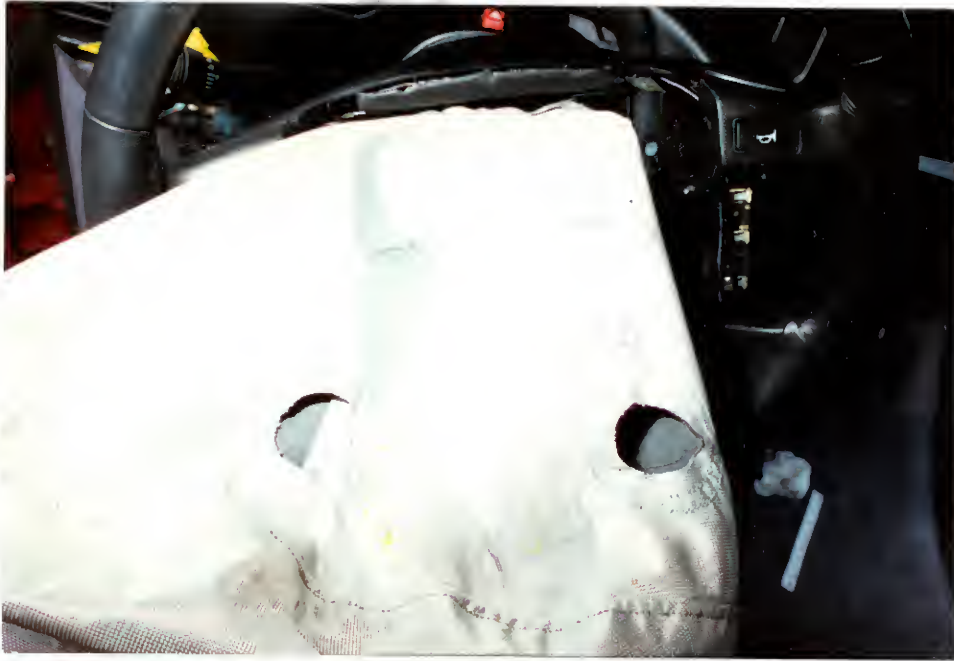
27. & 28. Separated upper module cover flap.



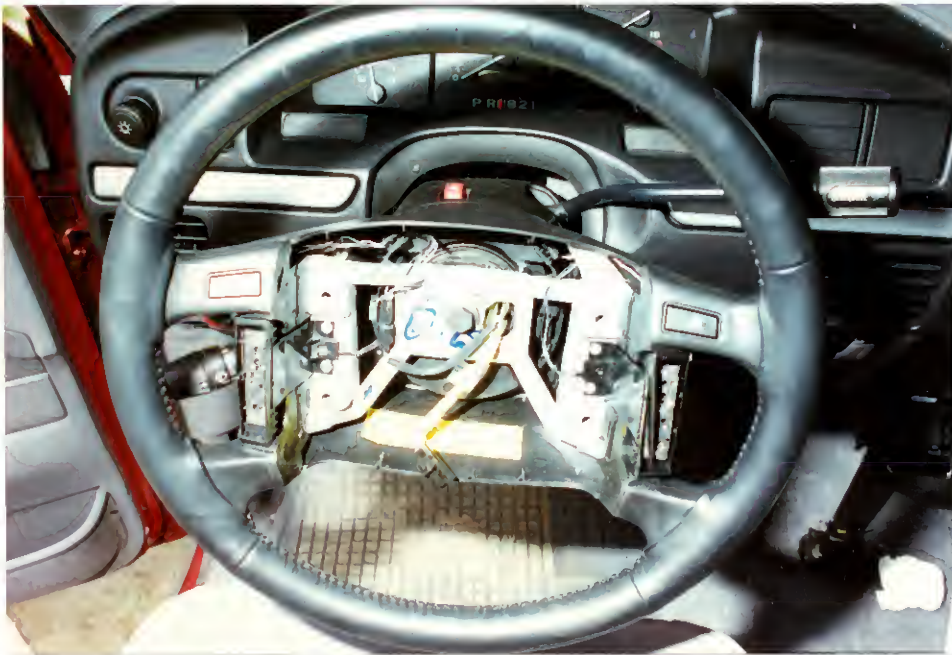
29. Upper flap vinyl transfers and vent ports.



30. Air bag fabric transfers on the inner surface of the lower flap.



31. Additional view of the separated upper module cover flap.



32. Steering wheel hub and spokes with air bag removed.



33. Air bag fabric transfer on the left upper steering wheel spoke.



34. Displaced cruise control switches and fabric transfer on the left lower spoke.



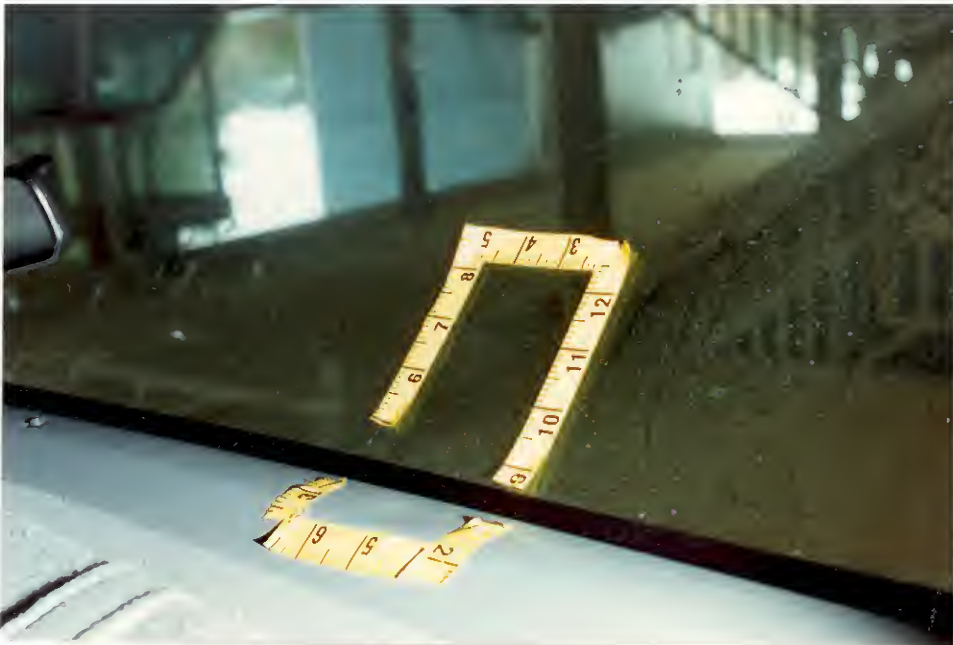
35. Damaged right cruise control switches and fabric transfers to the right lower spoke.



36. Perpendicular view of the steering wheel rim.



37. Driver's forehead contact to the windshield header and windshield.



38. Close-up view of the head contacts.



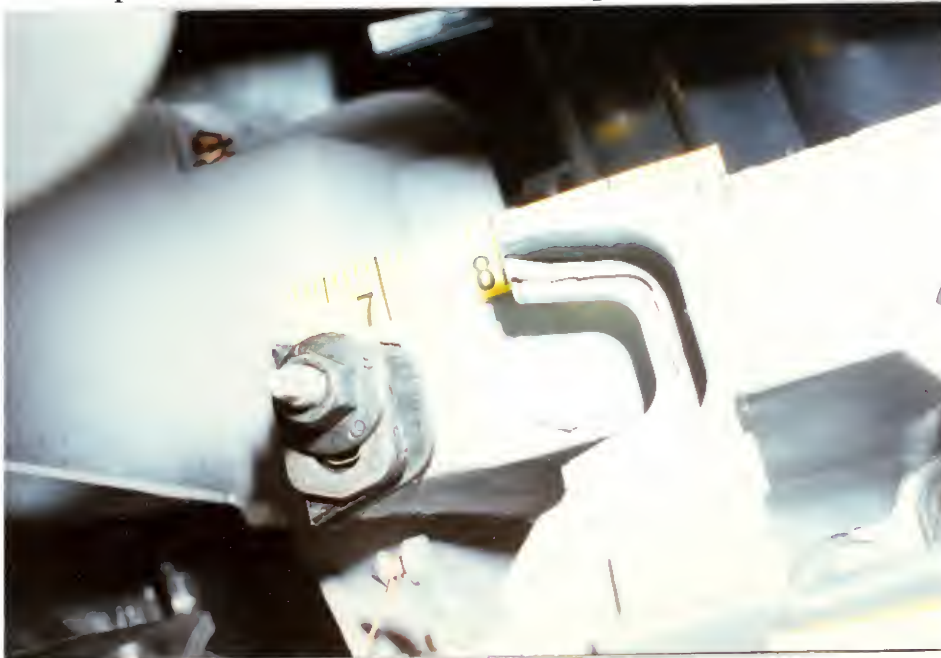
39. Probable contact from the separated upper module cover flap.



40. Driver's seat track adjustment with respect to the steering assembly.



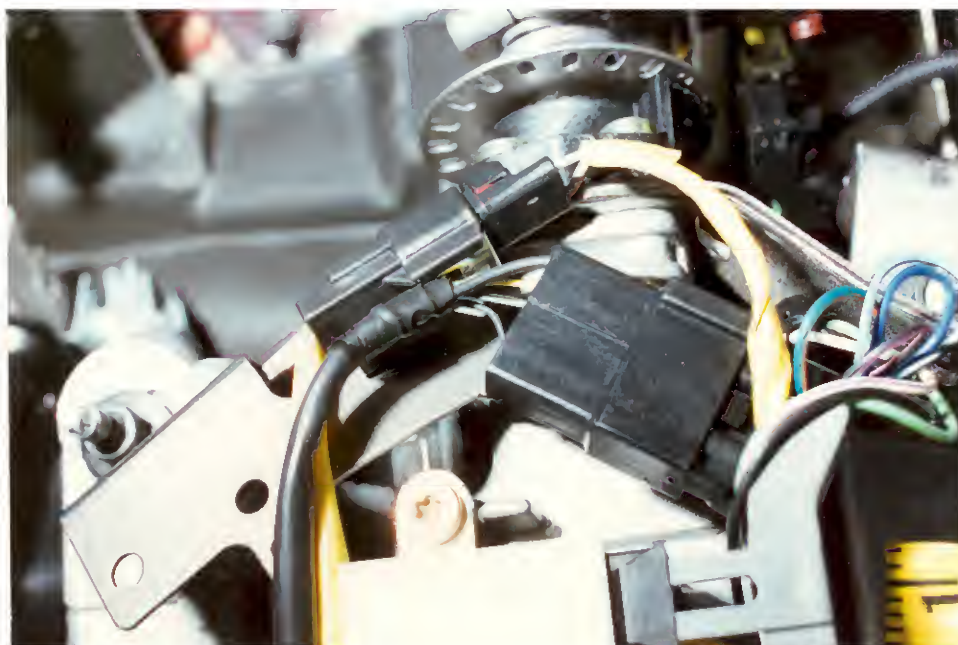
41. Stowed position of the driver's side manual 3-point lap and shoulder belt system.



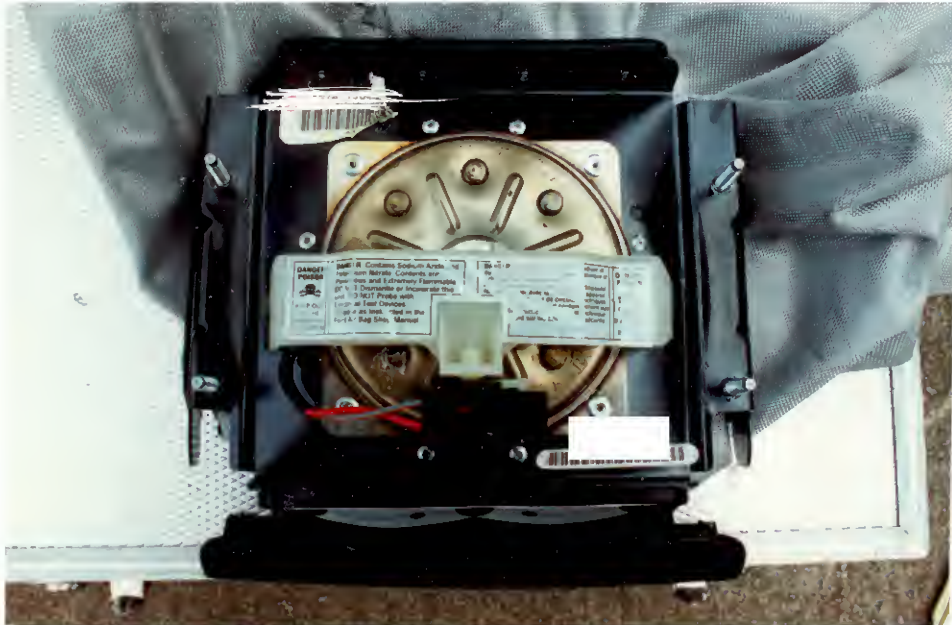
42. Compression of the right side steering column shear capsule.



43. Fractured left side shear capsule alloy bracket.



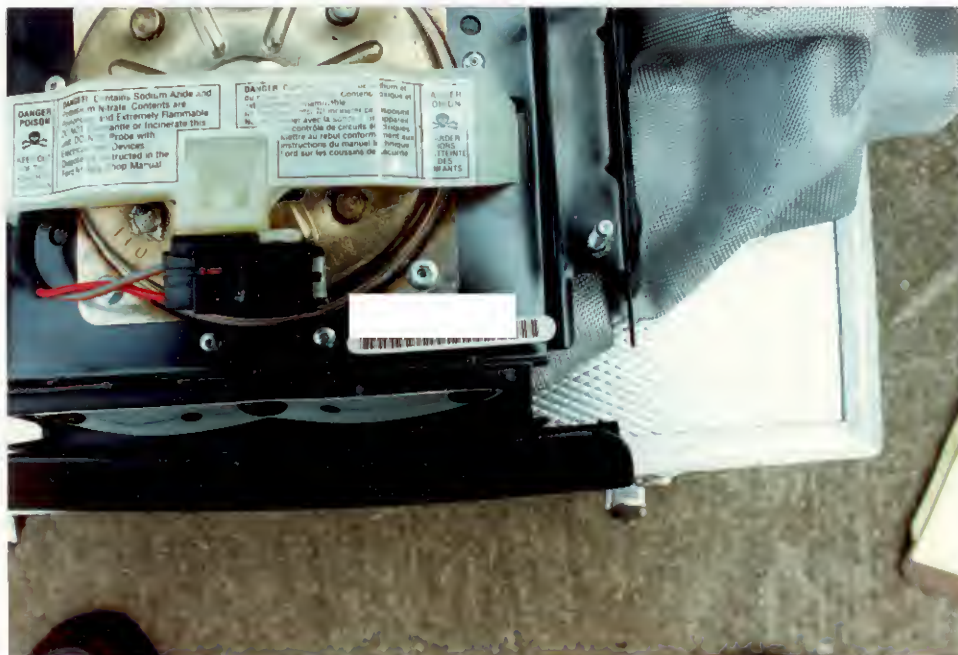
44. Deformable bracket at the base of the energy absorbing steering column.



45. Back side of the TRW air bag inflator.



46. Close-up view of the bar-coded label at the top of the inflator assembly.



47. Bar-coded label at the lower left corner of the inflator assembly.



48. Horizontal tear across the chest area of the driver's shirt.



49. Close-up view of the tear pattern.



50. Tear across the left pocket.



51. Tear across the right pocket area.



52. Separated right shirt pocket.



53. Tear of the driver's T-shirt at the left chest area.



54. Air bag fabric transfers on the leather pocket calendar contained in the driver's shirt pocket.



55. Additional view of the fabric transfer on the pocket calendar.

ATTACHMENT C

Police Accident Report

14

54 DATE OF COLLISION 55 AGENCY FILING THIS REPORT 56 CODE 57 STATE OF INCIDENT THORP

58 DATE OF COLLISION 59 DAY OF COLLISION 60 TIME (USE 2400 HRS) 61 NO. OF VEHICLES 62 NUMBER KILLED 63 NUMBER INJURED 64 TIME (USE 2400 HRS) 65 COUNTY

66 STREET NAME, ROAD NAME, ETC. 67 INTER WITH 68 NON INTER 69 FT 70 N 71 E 72 W 73 S 74 W 75 E 76 W 77 S 78 E 79 W 80 S 81 W 82 E 83 W 84 S 85 E 86 W 87 S 88 E 89 W 90 S 91 E 92 W 93 S 94 E 95 W 96 S 97 E 98 W 99 S 100 E

101 DRIVER'S LAST NAME 102 FIRST NAME 103 CITY 104 STATE 105 DOB 106 RACE 107 SEX 108 SOCIAL SECURITY NO. 109 SAME AS DL # 110 INSURANCE CO. OR AGENT DRIVER STATEMENT 111 PLACE OF EMPLOYMENT 112 OWNERS LAST NAME 113 FIRST NAME 114 CITY 115 STATE 116 VEH COLOR 117 MAKE OF VEHICLE 118 YEAR 119 LICENSE PLATE NO. 120 AUTH. 1 OWNER 121 VEHICLE REMOVED TO 122 AUTH. 1 OWNER 123 VEHICLE REMOVED BY 124 EST. PROP DAMAGE 125 NONE 126 LIGHT 127 DENTY 128 ALCOHOL DATA 129 DRIVER NO. 1 130 TEST TYPE 131 TEST RESULTS 132 BREATH 133 BLOOD 134 URINE 135 JUVENILE 136 ACCIDENT DESCRIPTION 137 DIAGRAM 138 DRIVER NO. 2 139 TEST TYPE 140 TEST RESULTS 141 BREATH 142 BLOOD 143 URINE 144 JUVENILE 145 NOT TO SCALE 146 BEACH 147 PINE 148 N 149 W 150 E 151 S 152 NE 153 SE 154 SW 155 NW 156 N 157 E 158 S 159 W 160 NE 161 SE 162 SW 163 NW 164 N 165 E 166 S 167 W 168 NE 169 SE 170 SW 171 NW 172 N 173 E 174 S 175 W 176 NE 177 SE 178 SW 179 NW 180 N 181 E 182 S 183 W 184 NE 185 SE 186 SW 187 NW 188 N 189 E 190 S 191 W 192 NE 193 SE 194 SW 195 NW 196 N 197 E 198 S 199 W 200 NE 201 SE 202 SW 203 NW 204 N 205 E 206 S 207 W 208 NE 209 SE 210 SW 211 NW 212 N 213 E 214 S 215 W 216 NE 217 SE 218 SW 219 NW 220 N 221 E 222 S 223 W 224 NE 225 SE 226 SW 227 NW 228 N 229 E 230 S 231 W 232 NE 233 SE 234 SW 235 NW 236 N 237 E 238 S 239 W 240 NE 241 SE 242 SW 243 NW 244 N 245 E 246 S 247 W 248 NE 249 SE 250 SW 251 NW 252 N 253 E 254 S 255 W 256 NE 257 SE 258 SW 259 NW 260 N 261 E 262 S 263 W 264 NE 265 SE 266 SW 267 NW 268 N 269 E 270 S 271 W 272 NE 273 SE 274 SW 275 NW 276 N 277 E 278 S 279 W 280 NE 281 SE 282 SW 283 NW 284 N 285 E 286 S 287 W 288 NE 289 SE 290 SW 291 NW 292 N 293 E 294 S 295 W 296 NE 297 SE 298 SW 299 NW 300 N 301 E 302 S 303 W 304 NE 305 SE 306 SW 307 NW 308 N 309 E 310 S 311 W 312 NE 313 SE 314 SW 315 NW 316 N 317 E 318 S 319 W 320 NE 321 SE 322 SW 323 NW 324 N 325 E 326 S 327 W 328 NE 329 SE 330 SW 331 NW 332 N 333 E 334 S 335 W 336 NE 337 SE 338 SW 339 NW 340 N 341 E 342 S 343 W 344 NE 345 SE 346 SW 347 NW 348 N 349 E 350 S 351 W 352 NE 353 SE 354 SW 355 NW 356 N 357 E 358 S 359 W 360 NE 361 SE 362 SW 363 NW 364 N 365 E 366 S 367 W 368 NE 369 SE 370 SW 371 NW 372 N 373 E 374 S 375 W 376 NE 377 SE 378 SW 379 NW 380 N 381 E 382 S 383 W 384 NE 385 SE 386 SW 387 NW 388 N 389 E 390 S 391 W 392 NE 393 SE 394 SW 395 NW 396 N 397 E 398 S 399 W 400 NE 401 SE 402 SW 403 NW 404 N 405 E 406 S 407 W 408 NE 409 SE 410 SW 411 NW 412 N 413 E 414 S 415 W 416 NE 417 SE 418 SW 419 NW 420 N 421 E 422 S 423 W 424 NE 425 SE 426 SW 427 NW 428 N 429 E 430 S 431 W 432 NE 433 SE 434 SW 435 NW 436 N 437 E 438 S 439 W 440 NE 441 SE 442 SW 443 NW 444 N 445 E 446 S 447 W 448 NE 449 SE 450 SW 451 NW 452 N 453 E 454 S 455 W 456 NE 457 SE 458 SW 459 NW 460 N 461 E 462 S 463 W 464 NE 465 SE 466 SW 467 NW 468 N 469 E 470 S 471 W 472 NE 473 SE 474 SW 475 NW 476 N 477 E 478 S 479 W 480 NE 481 SE 482 SW 483 NW 484 N 485 E 486 S 487 W 488 NE 489 SE 490 SW 491 NW 492 N 493 E 494 S 495 W 496 NE 497 SE 498 SW 499 NW 500 N 501 E 502 S 503 W 504 NE 505 SE 506 SW 507 NW 508 N 509 E 509 S 510 W 511 NE 512 SE 513 SW 514 NW 515 N 516 E 517 S 518 W 519 NE 520 SE 521 SW 522 NW 523 N 524 E 525 S 526 W 527 NE 528 SE 529 SW 530 NW 531 N 532 E 533 S 534 W 535 NE 536 SE 537 SW 538 NW 539 N 540 E 541 S 542 W 543 NE 544 SE 545 SW 546 NW 547 N 548 E 549 S 550 W 551 NE 552 SE 553 SW 554 NW 555 N 556 E 557 S 558 W 559 NE 560 SE 561 SW 562 NW 563 N 564 E 565 S 566 W 567 NE 568 SE 569 SW 570 NW 571 N 572 E 573 S 574 W 575 NE 576 SE 577 SW 578 NW 579 N 580 E 581 S 582 W 583 NE 584 SE 585 SW 586 NW 587 N 588 E 589 S 590 W 591 NE 592 SE 593 SW 594 NW 595 N 596 E 597 S 598 W 599 NE 600 SE 601 SW 602 NW 603 N 604 E 605 S 606 W 607 NE 608 SE 609 SW 610 NW 611 N 612 E 613 S 614 W 615 NE 616 SE 617 SW 618 NW 619 N 620 E 621 S 622 W 623 NE 624 SE 625 SW 626 NW 627 N 628 E 629 S 630 W 631 NE 632 SE 633 SW 634 NW 635 N 636 E 637 S 638 W 639 NE 640 SE 641 SW 642 NW 643 N 644 E 645 S 646 W 647 NE 648 SE 649 SW 650 NW 651 N 652 E 653 S 654 W 655 NE 656 SE 657 SW 658 NW 659 N 660 E 661 S 662 W 663 NE 664 SE 665 SW 666 NW 667 N 668 E 669 S 670 W 671 NE 672 SE 673 SW 674 NW 675 N 676 E 677 S 678 W 679 NE 680 SE 681 SW 682 NW 683 N 684 E 685 S 686 W 687 NE 688 SE 689 SW 690 NW 691 N 692 E 693 S 694 W 695 NE 696 SE 697 SW 698 NW 699 N 700 E 701 S 702 W 703 NE 704 SE 705 SW 706 NW 707 N 708 E 709 S 710 W 711 NE 712 SE 713 SW 714 NW 715 N 716 E 717 S 718 W 719 NE 720 SE 721 SW 722 NW 723 N 724 E 725 S 726 W 727 NE 728 SE 729 SW 730 NW 731 N 732 E 733 S 734 W 735 NE 736 SE 737 SW 738 NW 739 N 740 E 741 S 742 W 743 NE 744 SE 745 SW 746 NW 747 N 748 E 749 S 750 W 751 NE 752 SE 753 SW 754 NW 755 N 756 E 757 S 758 W 759 NE 760 SE 761 SW 762 NW 763 N 764 E 765 S 766 W 767 NE 768 SE 769 SW 770 NW 771 N 772 E 773 S 774 W 775 NE 776 SE 777 SW 778 NW 779 N 780 E 781 S 782 W 783 NE 784 SE 785 SW 786 NW 787 N 788 E 789 S 790 W 791 NE 792 SE 793 SW 794 NW 795 N 796 E 797 S 798 W 799 NE 800 SE 801 SW 802 NW 803 N 804 E 805 S 806 W 807 NE 808 SE 809 SW 810 NW 811 N 812 E 813 S 814 W 815 NE 816 SE 817 SW 818 NW 819 N 820 E 821 S 822 W 823 NE 824 SE 825 SW 826 NW 827 N 828 E 829 S 830 W 831 NE 832 SE 833 SW 834 NW 835 N 836 E 837 S 838 W 839 NE 840 SE 841 SW 842 NW 843 N 844 E 845 S 846 W 847 NE 848 SE 849 SW 850 NW 851 N 852 E 853 S 854 W 855 NE 856 SE 857 SW 858 NW 859 N 860 E 861 S 862 W 863 NE 864 SE 865 SW 866 NW 867 N 868 E 869 S 870 W 871 NE 872 SE 873 SW 874 NW 875 N 876 E 877 S 878 W 879 NE 880 SE 881 SW 882 NW 883 N 884 E 885 S 886 W 887 NE 888 SE 889 SW 890 NW 891 N 892 E 893 S 894 W 895 NE 896 SE 897 SW 898 NW 899 N 900 E 901 S 902 W 903 NE 904 SE 905 SW 906 NW 907 N 908 E 909 S 910 W 911 NE 912 SE 913 SW 914 NW 915 N 916 E 917 S 918 W 919 NE 920 SE 921 SW 922 NW 923 N 924 E 925 S 926 W 927 NE 928 SE 929 SW 930 NW 931 N 932 E 933 S 934 W 935 NE 936 SE 937 SW 938 NW 939 N 940 E 941 S 942 W 943 NE 944 SE 945 SW 946 NW 947 N 948 E 949 S 950 W 951 NE 952 SE 953 SW 954 NW 955 N 956 E 957 S 958 W 959 NE 960 SE 961 SW 962 NW 963 N 964 E 965 S 966 W 967 NE 968 SE 969 SW 970 NW 971 N 972 E 973 S 974 W 975 NE 976 SE 977 SW 978 NW 979 N 980 E 981 S 982 W 983 NE 984 SE 985 SW 986 NW 987 N 988 E 989 S 990 W 991 NE 992 SE 993 SW 994 NW 995 N 996 E 997 S 998 W 999 NE 1000 SE 1001 SW 1002 NW 1003 N 1004 E 1005 S 1006 W 1007 NE 1008 SE 1009 SW 1010 NW 1011 N 1012 E 1013 S 1014 W 1015 NE 1016 SE 1017 SW 1018 NW 1019 N 1020 E 1021 S 1022 W 1023 NE 1024 SE 1025 SW 1026 NW 1027 N 1028 E 1029 S 1030 W 1031 NE 1032 SE 1033 SW 1034 NW 1035 N 1036 E 1037 S 1038 W 1039 NE 1040 SE 1041 SW 1042 NW 1043 N 1044 E 1045 S 1046 W 1047 NE 1048 SE 1049 SW 1050 NW 1051 N 1052 E 1053 S 1054 W 1055 NE 1056 SE 1057 SW 1058 NW 1059 N 1060 E 1061 S 1062 W 1063 NE 1064 SE 1065 SW 1066 NW 1067 N 1068 E 1069 S 1070 W 1071 NE 1072 SE 1073 SW 1074 NW 1075 N 1076 E 1077 S 1078 W 1079 NE 1080 SE 1081 SW 1082 NW 1083 N 1084 E 1085 S 1086 W 1087 NE 1088 SE 1089 SW 1090 NW 1091 N 1092 E 1093 S 1094 W 1095 NE 1096 SE 1097 SW 1098 NW 1099 N 1100 E 1101 S 1102 W 1103 NE 1104 SE 1105 SW 1106 NW 1107 N 1108 E 1109 S 1110 W 1111 NE 1112 SE 1113 SW 1114 NW 1115 N 1116 E 1117 S 1118 W 1119 NE 1120 SE 1121 SW 1122 NW 1123 N 1124 E 1125 S 1126 W 1127 NE 1128 SE 1129 SW 1130 NW 1131 N 1132 E 1133 S 1134 W 1135 NE 1136 SE 1137 SW 1138 NW 1139 N 1140 E 1141 S 1142 W 1143 NE 1144 SE 1145 SW 1146 NW 1147 N 1148 E 1149 S 1150 W 1151 NE 1152 SE 1153 SW 1154 NW 1155 N 1156 E 1157 S 1158 W 1159 NE 1160 SE 1161 SW 1162 NW 1163 N 1164 E 1165 S 1166 W 1167 NE 1168 SE 1169 SW 1170 NW 1171 N 1172 E 1173 S 1174 W 1175 NE 1176 SE 1177 SW 1178 NW 1179 N 1180 E 1181 S 1182 W 1183 NE 1184 SE 1185 SW 1186 NW 1187 N 1188 E 1189 S 1190 W 1191 NE 1192 SE 1193 SW 1194 NW 1195 N 1196 E 1197 S 1198 W 1199 NE 1200 SE 1201 SW 1202 NW 1203 N 1204 E 1205 S 1206 W 1207 NE 1208 SE 1209 SW 1210 NW 1211 N 1212 E 1213 S 1214 W 1215 NE 1216 SE 1217 SW 1218 NW 1219 N 1220 E 1221 S 1222 W 1223 NE 1224 SE 1225 SW 1226 NW 1227 N 1228 E 1229 S 1230 W 1231 NE 1232 SE 1233 SW 1234 NW 1235 N 1236 E 1237 S 1238 W 1239 NE 1240 SE 1241 SW 1242 NW 1243 N 1244 E 1245 S 1246 W 1247 NE 1248 SE 1249 SW 1250 NW 1251 N 1252 E 1253 S 1254 W 1255 NE 1256 SE 1257 SW 1258 NW 1259 N 1260 E 1261 S 1262 W 1263 NE 1264 SE 1265 SW 1266 NW 1267 N 1268 E 1269 S 1270 W 1271 NE 1272 SE 1273 SW 1274 NW 1275 N 1276 E 1277 S 1278 W 1279 NE 1280 SE 1281 SW 1282 NW 1283 N 1284 E 1285 S 1286 W 1287 NE 1288 SE 1289 SW 1290 NW 1291 N 1292 E 1293 S 1294 W 1295 NE 1296 SE 1297 SW 1298 NW 1299 N 1300 E 1301 S 1302 W 1303 NE 1304 SE 1305 SW 1306 NW 1307 N 1308 E 1309 S 1310 W 1311 NE 1312 SE 1313 SW 1314 NW 1315 N 1316 E 1317 S 1318 W 1319 NE 1320 SE 1321 SW 1322 NW 1323 N 1324 E 1325 S 1326 W 1327 NE 1328 SE 1329 SW 1330 NW 1331 N 1332 E 1333 S 1334 W 1335 NE 1336 SE 1337 SW 1338 NW 1339 N 1340 E 1341 S 1342 W 1343 NE 1344 SE 1345 SW 1346 NW 1347 N 1348 E 1349 S 1350 W 1351 NE 1352 SE 1353 SW 1354 NW 1355 N 1356 E 1357 S 1358 W 1359 NE 1360 SE 1361 SW 1362 NW 1363 N 1364 E 1365 S 1366 W 1367 NE 1368 SE 1369 SW 1370 NW 1371 N 1372 E 1373 S 1374 W 1375 NE 1376 SE 1377 SW 1378 NW 1379 N 1380 E 1381 S 1382 W 1383 NE 1384 SE 1385 SW 1386 NW 1387 N 1388 E 1389 S 1390 W 1391 NE 1392 SE 1393 SW 1394 NW 1395 N 1396 E 1397 S 1398 W 1399 NE 1400 SE 1401 SW 1402 NW 1403 N 1404 E 1405 S 1406 W 1407 NE 1408 SE 1409 SW 1410 NW 1411 N 1412 E 1413 S 1414 W 1415 NE 1416 SE 1417 SW 1418 NW 1419 N 1420 E 1421 S 1422 W 1423 NE 1424 SE 1425 SW 1426 NW 1427 N 1428 E 1429 S 1430 W 1431 NE 1432 SE 1433 SW 1434 NW 1435 N 1436 E 1437 S 1438 W 1439 NE 1440 SE 1441 SW 1442 NW 1443 N 1444 E 1445 S 1446 W 1447 NE 1448 SE 1449 SW 1450 NW 1451 N 1452 E 1453 S 1454 W 1455 NE 1456 SE 1457 SW 1458 NW 1459 N 1460 E 1461 S 1462 W 1463 NE 1464 SE 1465 SW 1466 NW 1467 N 1468 E 1469 S 1470 W 1471 NE 1472 SE 1473 SW 1474 NW 1475 N 1476 E 1477 S 1478 W 1479 NE 1480 SE 1481 SW 1482 NW 1483 N 1484 E 1485 S 1486 W 1487 NE 1488 SE 1489 SW 1490 NW 1491 N 1492 E 1493 S 1494 W 1495 NE 1496 SE 1497 SW 1498 NW 1499 N 1500 E 1501 S 1502 W 1503 NE 1504 SE 1505 SW 1506 NW 1507 N 1508 E 1509 S 1510 W 1511 NE 1512 SE 1513 SW 1514 NW 1515 N 1516 E 1517 S 1518 W 1519 NE 1520 SE 1521 SW 1522 NW 1523 N 1524 E 1525 S 1526 W 1527 NE 1528 SE 1529 SW 1530 NW 1531 N 1532 E 1533 S 1534 W 1535 NE 1536 SE 1537 SW 1538 NW 1539 N 1540 E 1541 S 1542 W 1543 NE 1544 SE 1545 SW 1546 NW 1547 N 1548 E 1549 S 1550 W 1551 NE 1552 SE 1553 SW 1554 NW 1555 N 1556 E 1557 S 1558 W 1559 NE 1560 SE 1561 SW 1562 NW 1563 N 1564 E 1565 S 1566 W 1567 NE 1568 SE 1569 SW 1570 NW 1571 N 1572 E 1573 S 1574 W 1575 NE 1576 SE 1577 SW 1578 NW 1579 N 1580 E 1581 S 1582 W 1583 NE 1584 SE 1585 SW 1586 NW 1587 N 1588 E 1589 S 1590 W 1591 NE 1592 SE 1593 SW 1594 NW 1595 N 1596 E 1597 S 1598 W 1599 NE 1600 SE 1601 SW 1602 NW 1603 N 1604 E 1605 S 1606 W 1607 NE 1608 SE 1609 SW 1610 NW 1611 N 1612 E 1613 S 1614 W 1615 NE 1616 SE 1617 SW 1618 NW 1619 N 1620 E 1621 S 1622 W 1623 NE 1624 SE 1625 SW 1626 NW 1627 N 1628 E 1629 S 1630 W 1631 NE 1632 SE 1633 SW 1634 NW 1635 N 1636 E 1637 S 1638 W 1639 NE 1640 SE 1641 SW 1642 NW 1643 N 1644 E 1645 S 1646 W 1647 NE 1648 SE 1649 SW 1650 NW 1651 N 1652 E 1653 S 1654 W 1655 NE 1656 SE 1657 SW 1658 NW 1659 N 1660 E 1661 S 1662 W 1663 NE 1664 SE 1665 SW 1666 NW 1667 N 1668 E 1669 S 1670 W 1671 NE 1672 SE 1673 SW 1674 NW 1675 N 1676 E 1677 S 1678 W 1679 NE 1680 SE 1681 SW 1682 NW 1683 N 1684 E 1685 S 1686 W 1687 NE 1688 SE 1689 SW 1690 NW 1691 N 1692 E 1693 S 1694 W 1695 NE 1696 SE 1697 SW 1698 NW 1699 N 1700 E 1701 S 1702 W 1703 NE 1704 SE 1705 SW 1706 NW 1707 N 1708 E 1709 S 1710 W 1711 NE 1712 SE 1713 SW 1714 NW 1715 N 1716 E 1717 S 1718 W 1719 NE 1720 SE 1721 SW 1722 NW 1723 N 1724 E 1725 S 1726 W 1727 NE 1728 SE 1729 SW 1730 NW 1731 N 1732 E 1733 S 1734 W 1735 NE 1736 SE 1737 SW 1738 NW 1739 N 1740 E 1741 S 1742 W 1743 NE 1744 SE 1745 SW 1746 NW 1747 N 1748 E 1749 S 1750 W 1751 NE 1752 SE 1753 SW 1754 NW 1755 N 1756 E 1757 S 1758 W 1759 NE 1760 SE 1761 SW 1762 NW 1763 N 1764 E 1765 S 1766 W 1767 NE 1768 SE 1769 SW 1770 NW 1771 N 1772 E 1773 S 1774 W 1775 NE 1776 SE 1777 SW 1778 NW 1779 N 1780 E 1781 S 1782 W 1783 NE 1784 SE 1785 SW 1786 NW 1787 N 1788 E 1789 S 1790 W 1791 NE 1792 SE 1793 SW 1794 NW 1795 N 1796 E 1797 S 1798 W 1799 NE 1800 SE 1801 SW 1802 NW 1803 N 1804 E 1805 S 1806 W 1807 NE 1808 SE 1809 SW 1810 NW 1811 N 1812 E 1813 S 1814 W 1815 NE 1816 SE 1817 SW 1818 NW 1819 N 1820 E 1821 S 1822 W 1823 NE 1824 SE 1825 SW 1826 NW 1827 N 1828 E 1829 S 1830 W 1831 NE 1832 SE 1833 SW 1834 NW 1835 N 1836 E 1837 S 1838 W 1839 NE 1840 SE 1841 SW 1842 NW 1843 N 1844 E 1845 S 1846 W 1847 NE 1848 SE 1849 SW 1850 NW 1851 N 1852 E 1853 S 1854 W 1855 NE 1856 SE 1857 SW 1858 NW 1859 N 1860 E 1861 S 1862 W 1863 NE 1864 SE 1865 SW 1866 NW 1867 N 1868 E 1869 S 1870 W 1871 NE 1872 SE 1873 SW 1874 NW 1875 N 1876 E 1877 S 1878 W 1879 NE 1880 SE 1881 SW 1882 NW 1883 N 1884 E 1885 S 1886 W 1887 NE 1888 SE 1889 SW 1890 NW 1891 N 1892 E 1893 S 1894 W 1895 NE 1896 SE 1897 SW 1898 NW 1899 N 1900 E 1901 S 1902 W 1903 NE 1904 SE 1905 SW 1906 NW 1907 N 1908 E 1909 S 1910 W 1911 NE 1912 SE 1913 SW 1914 NW 1915 N 1916 E 1917 S 1918 W 1919 NE 1920 SE 1921 SW 1922 NW 1923 N 1924 E 1925 S 1926 W 1927 NE 1928 SE 1929 SW 1930 NW 1931 N 1932 E 1933 S 1934 W 1935 NE 1936 SE 1937 SW 1938 NW 1939 N 1940 E 1941 S 1942 W 1943 NE 1944 SE 1945 SW 1946 NW 1947 N 1948 E 1949 S 1950 W 1951 NE 1952 SE 1953 SW 1954 NW 1955 N 1956 E 1957 S 1958 W 1959 NE 1960 SE 1961 SW 1962 NW 1963 N 1964 E 1965 S 1966 W 1967 NE 1968 SE 1969 SW 1970 NW 1971 N 1972 E 1973 S 1974 W 1975 NE 1976 SE 1977 SW 1978 NW 1979 N 1980 E 1981 S 1982 W 1983 NE 1984 SE 1985 SW 1986 NW 1987 N 1988 E 1989 S 1990 W 1991 NE 1992 SE 1993 SW 1994 NW 1995 N 1996 E 1997 S 1998 W 1999 NE 2000 SE 2001 SW 2002 NW 2003 N 2004 E 2005 S 2006 W 2007 NE 2008 SE 2009 SW 2010 NW 2011 N 2012 E 2013 S 2014 W 2015 NE 2016 SE 2017 SW 2018 NW 2019 N 2020 E 2021 S 2022 W 2023 NE 2024 SE 2025 SW 2026 NW 2027 N 2028 E 2029 S 2030 W 2031 NE 2032 SE 2033 SW 2034 NW 2035 N 2036 E 2037 S 2038 W 2039 NE 2040 SE 2041 SW 2042 NW 2043 N 2044 E 2045 S 2046 W 2047 NE 2048 SE 2049 SW 2050 NW 2051 N 2052 E 2053 S 2054 W 2055 NE 2056 SE 2057 SW 2058 NW 2059 N 2060 E 2061 S 2062 W 2063 NE 2064 SE 2065 SW 2066 NW 2067 N 2068 E 2069 S 2070 W 2071 NE 2072 SE 2073 SW 2074 NW 2075 N 2076 E 2077 S 2078 W 2079 NE 2080 SE 2081 SW 2082 NW 2083 N 2084 E 2085 S 2086 W 2087 NE 2088 SE 2089 SW 2090 NW 2091 N 2092 E 2093 S 2094 W 2095 NE 2096 SE 2097 SW 2098 NW 2099 N 2100 E 2101 S 2102 W 2103 NE 2104 SE 2105 SW 2106 NW 2107 N 2108 E 2109 S 2110 W 2111 NE 2112 SE 2113 SW 2114 NW 2115 N 2116 E 2117 S 2118 W 2119 NE 2120 SE 2121 SW 2122 NW 2123 N 2124 E 2125 S 2126 W 2127 NE 2128 SE 2129 SW 2130 NW 2131 N 2132 E 2133 S 2134 W 2135 NE 2136 SE 2137 SW 2138 NW 2139 N 2140 E 2141 S 2142 W 2143 NE 2144 SE 2145 SW 2146 NW 2147 N 2148 E 2149 S 2150 W 2151 NE 2152 SE 2153 SW 2154 NW 2155 N 2156 E 2157 S 2158 W 2159 NE 2160 SE 2161 SW 2162 NW 2163 N 2164 E 2165 S 2166 W 2167 NE 2168 SE 2169 SW 2170 NW 2171 N 2172 E 2173 S 2174 W 2175 NE 2176 SE 2177 SW 2178 NW 2179 N 2180 E 2181 S 2182 W 2183 NE 2184 SE 2185 SW 2186 NW 2187 N 2188 E 2189 S 2190 W 2191 NE 2192 SE 2193 SW 2194 NW 2195 N 2196 E 2197 S 2198 W 2199 NE 2200 SE 2201 SW 2202 NW 2203 N 2204 E 2205 S 2206 W 2207 NE 2208 SE 2209 SW 2210 NW 2211 N 2212 E 2213 S 2214 W 2215 NE 2216 SE 2217 SW 2218 NW 2219 N 2220 E 2221 S 2222 W 2223 NE 2224 SE 2225 SW 2226 NW 2227 N 2228 E 2229 S 2230 W 2231 NE 2232 SE 2233 SW 2234 NW 2235 N 2236 E 2237 S 2238 W 2239 NE 2240 SE 2241 SW 2242 NW 2243 N 2244 E 2245 S 2246 W 2247 NE 2248 SE 2

MISSISSIPPI UNIFORM ACCIDENT REPORT

Mississippi

ACCIDENT TYPE Run off Road 1 Right 2 Left 3 Straight Non-Coll. In Road 4 Overturn 5 Fell from Vehicle 6 Other in Road Coll. of M/V in road with: 7 Pedestrian 8 Parked vehicle 9 Train 10 Bicycle 11 Animal 12 Fixed object 13 Other object Coll. with ONLY in Road 14 Rear and slow or stop 15 Rear and turn 16 Left turn same roadway 17 Left turn cross traffic 18 Right turn cross traffic 19 Head-on 20 Sideswipe 21 Angle 22 Other		VISION OBSCUREMENT 1 Rain, snow, fog on windshield 2 Windshield obscured - other 3 Vision blocked by lead on vehicle 4 Vision blocked by trees, bushes 5 Vision blocked by building 6 Vision blocked by embankment 7 Vision blocked by sightboards 8 Vision blocked by foliage 9 Vision blocked by parked veh 10 Vision blocked by moving veh 11 Driver blinded by headlights 12 Vision not obscured		Veh 1 31 Veh 2 32
OBJECT STRUCK 1 Utility Pole 2 Trees 3 Corner barrier median island 4 Curb, catch basin, culvert 5 Guard rail 6 Sign post 7 Signal standard 8 Abutment, embankment wall 9 Building, telephone booth 10 Bicycle 11 Animal 12 Other		TRAFFIC CONTROL 1 Stop sign 2 Stop and go signal 3 Yield sign 4 Flashing signal 5 Railroad flasher 6 Railroad gate and flasher 7 No passing zone 8 Channelization - painted 9 Channelization - physical 10 Other 11 No control present 12 Other		Veh 1 33 Veh 2 34
ROAD SYSTEM 1 Interstate 2 State Highway 3 U.S. Highway 4 County Road 5 Municipal City 6 State Park 7 Other 8 Off Roadway 9 Parking Lot, Private Property		TRAFFIC CONTROL FUNCTIONING 1 Not Functioning 2 Functioning Properly 3 Functioning Improperly 4 Not Known		Veh 1 35 Veh 2 36
PHYSICAL CONDITION OF DRIVER OR PEDESTRIAN 1 Obviously intoxicated 2 Had been drinking - ability impaired 3 Same - ability not impaired 4 Sleepy, Fatigued 5 Other bodily defects - harmless 6 Affected by exhaust fumes 7 Using drugs - ability impaired 8 Same - ability not impaired 9 No defects apparent 10 Unknown 11 Hit and Run 12 Pending-Lab results		LIGHT CONDITION 1 Daylight 2 Dawn or dusk 3 Darkness, no street lights 4 Darkness, street lighted		Veh 1 37 Veh 2 38
DRIVERS LICENSE 1 Valid license 2 No license 3 Expired license 4 Suspended license 5 Suspended - DUI 6 Learner Permit 7 Improper DL 8 Other		WEATHER CONDITION 1 Clear 2 Rainy 3 Snowing 4 Fog 5 Dust 6 High wind 7 Cloudy 8 Other		Veh 1 39 Veh 2 40
DRIVERS LICENSE RESTRICTIONS 1 Corrective lens 2 Full hand equipment 3 Outside rearview mirror 4 Pk-Tk Comm - Pass 5 Automatic transmission 6 Mechanical signals 7 45 MPH 8 Re-examine before renewal 9 Grip on steering wheel 10 Motor driven cycle 11 Company owned vehicle 12 None 13 Other		ROAD CHARACTER (LANE) 1 One-lane road or alley 2 Two-lane road 3 Three-lane road 4 Four-lane road 5 Divided road or one way street 6 Freeway 7 Unimproved road any size 8 Parking Lot		Veh 1 41 Veh 2 42
TYPE OF MOTOR VEHICLE 1 Regular passenger car 2 Compact passenger car 3 Pickup 4 Station Wagon Van 5 Passenger Van and Trailer 6 Truck or truck tractor 7 Truck tractor and semi-trailer 8 Other truck combination 9 Farm tractor or farm equipment 10 Tractor 11 Motorcycle 12 All-terrain vehicle 13 Recreation vehicle 14 School Bus 15 Bus 16 Error Veh 17 Other		ROAD CHARACTER (DESIGN) 1 Bridge or underpass 2 Straight and level 3 Straight and grade 4 Straight and hill crest 5 Curve and level 6 Curve and grade 7 Curve and hillcrest 8 Intersection of two roadways 9 Non-intersection median crossover 10 Non-intersection private drive 11 End or beginning of divided highway 12 Other		Veh 1 43 Veh 2 44
VEHICLE CONDITION 1 Defective brakes 2 No trailer brakes 3 Defective steering 4 Defective headlights 5 Defective taillights 6 Defective turn signal 7 Puncture or blowout 8 Fire and/or explosion 9 Slick or unsafe tire 10 Other defects 11 Defects not known 12 No defects apparent		ROAD SURFACE CONDITION 1 Dry 2 Wet 3 Snowy, icy 4 Other 5 Unknown		Veh 1 45 Veh 2 46
DIRECTION OF TRAVEL 1 North 2 South 3 East 4 West 5 Northeast 6 Southwest 7 Northwest 8 Southeast		ROAD SURFACE TYPE 1 Concrete 2 Asphalt 3 Gravel 4 Dirt 5 Other		Veh 1 47 Veh 2 48
DIRECTION OF TRAVEL TWO OR MORE VEHICLES Both Vehicles Entered Intersection 1 At angle 2 From same direction 3 From opposite direction Near Intersection, Both Vehicles Going: 4 In opposite direction 5 In same direction 6 At angle		ROAD DIVIDED BY 1 Metal barrier 2 Concrete barrier 3 Concrete island 4 Grass median 5 None 6 Wooded barrier 7 Other		Veh 1 49 Veh 2 50
VEHICLE ACTION 1 Going straight ahead 2 Making right turn 3 Making left turn 4 Making U turn 5 Slowing/stopping in trafficway 6 Entering/parking position 7 Parked 8 Leaving parked position 9 Backing 10 Overtaking, passing 11 Avoiding vehicle, object, pedestrian 12 In tow 13 Stopped in lane for traffic 14 Unknown		CONTRIBUTING CIRCUMSTANCES 1 No improper driving 2 Exceeded lawful speed 3 Speed too fast for conditions 4 Failed to yield right of way 5 Improper passing/overtaking 6 Drove on wrong side of road 7 Passed stop sign 8 Following too closely 9 Made improper turn 10 Faulty equipment 11 Intoxication 12 Driving under influence 13 Roadway defects 14 Pedestrian actions 15 Animal on highway 16 Other		Veh 1 51 Veh 2 52
PEDESTRIAN ACTION 1 Crossing road at intersection 2 Crossing road - non-intersection 3 Waiting in road with traffic 4 Waiting in road against traffic 5 Standing in road 6 Getting on or off vehicle 7 Working on or pushing vehicle 8 Working on or in road 9 Playing in road 10 In road - other reason 11 Not in road 12 Hitch-hiking		TYPE EMERGENCY MEDICAL SERVICE 1 None 2 Commercial or private unit 3 Municipal or volunteer unit 4 Hospital based unit 5 State or federal unit 6 Type unknown 7 Two or more types 8 Other 9 Unknown		Veh 1 53 Veh 2 54
PEDESTRIAN CLOTHING 1 Light 2 Dark		EXTRICATION 1 Yes 2 No		Veh 1 55 Veh 2 56
WHICH VEHICLE OCCUPIED 1 Veh 1 2 Veh 2 3 Pedestrian 4 Other		RE-EXAMINE DRIVER 1 Veh 1 2 Veh 2 3 Both 4 No		Veh 1 57 Veh 2 58
POSITION IN VEHICLE 1 Driver 2 thru 7 Passengers 8 Riding Hanging On Outside		POLICE ENFORCEMENT ACTION 1 DUI arrest 2 Cited for accident cause 3 Cited other cause 4 Arrested - other 5 No enforcement action		Veh 1 59 Veh 2 60
SAFETY EQUIPMENT USED 1 No restraint used 2 Lap Belt 3 Harness 4 Lap Belt & Harness 5 Child Restraint 6 Harness 7 Air Bag 8 Other		INITIAL IMPACT 10 UNDER CAR 11 OVERTURNED 12 TOTALLED 13 NONE OR UNKNOWN 14 OTHER		Veh 1 61 Veh 2 62
EJECTION FROM VEHICLE 1 Not Ejected 2 Partial Ejection 3 Ejected 4 Killed 5 Incapacitated 6 Compensated or Pan 7 No Injury		INJURED TAKEN TO 1 Hospital 2 Home 3 Other		Veh 1 63 Veh 2 64
AGE 1 0-17 2 18-24 3 25-34 4 35-44 5 45-54 6 55-64 7 65-74 8 75-84 9 85+		OCCUPANTS 1 Driver 2 Passenger 3 Other		Veh 1 65 Veh 2 66

ATTACHMENT D

CRASHPC Output

SUMMARY OF CRASHPC RESULTS USING DAMAGE

CRASH3 RECONSTRUCTION

SPEED CHANGE (DAMAGE)

VEHICLE #1

TOTAL 19 KPH (12 MPH)
 LONGITUDINAL -19 KPH (-12 MPH)
 LATITUDINAL 0 KPH (0 MPH)
 PDOF ANGLE 0 DEGREES
 ENERGY DISSIPATED = 26414 JOULES (19480 FT-LB)

VEHICLE #2

TOTAL 30 KPH (18 MPH)
 LONGITUDINAL 30 KPH (18 MPH)
 LATITUDINAL 0 KPH (0 MPH)
 PDOF ANGLE -180 DEGREES
 ENERGY DISSIPATED = 49169 JOULES (36260 FT-LB)

DAMAGE DATA

VEHICLE #1

SIZE CATEGORY 6
 STIFFNESS CATEGORY 8
 VEHICLE WEIGHT 2039 KGS (4496 LBS)
 CDC 12FDEW1
 PDOF ANGLE 0 DEGREES
 CRUSH LENGTH 182 CM. (72 IN.)
 C1 4 CM. (2 IN.)
 C2 3 CM. (1 IN.)
 C3 6 CM. (3 IN.)
 C4 6 CM. (3 IN.)
 C5 4 CM. (2 IN.)
 C6 3 CM. (1 IN.)
 D 0 CM. (0 IN.)
 D' 0 CM. (0 IN.)

VEHICLE #2

3
 3
 1338 KGS (2950 LBS)
 06BDEW2
 180 DEGREES
 142 CM. (56 IN.)
 15 CM. (6 IN.)
 20 CM. (8 IN.)
 25 CM. (10 IN.)
 30 CM. (12 IN.)
 25 CM. (10 IN.)
 20 CM. (8 IN.)
 0 CM. (0 IN.)
 4 CM. (1 IN.)

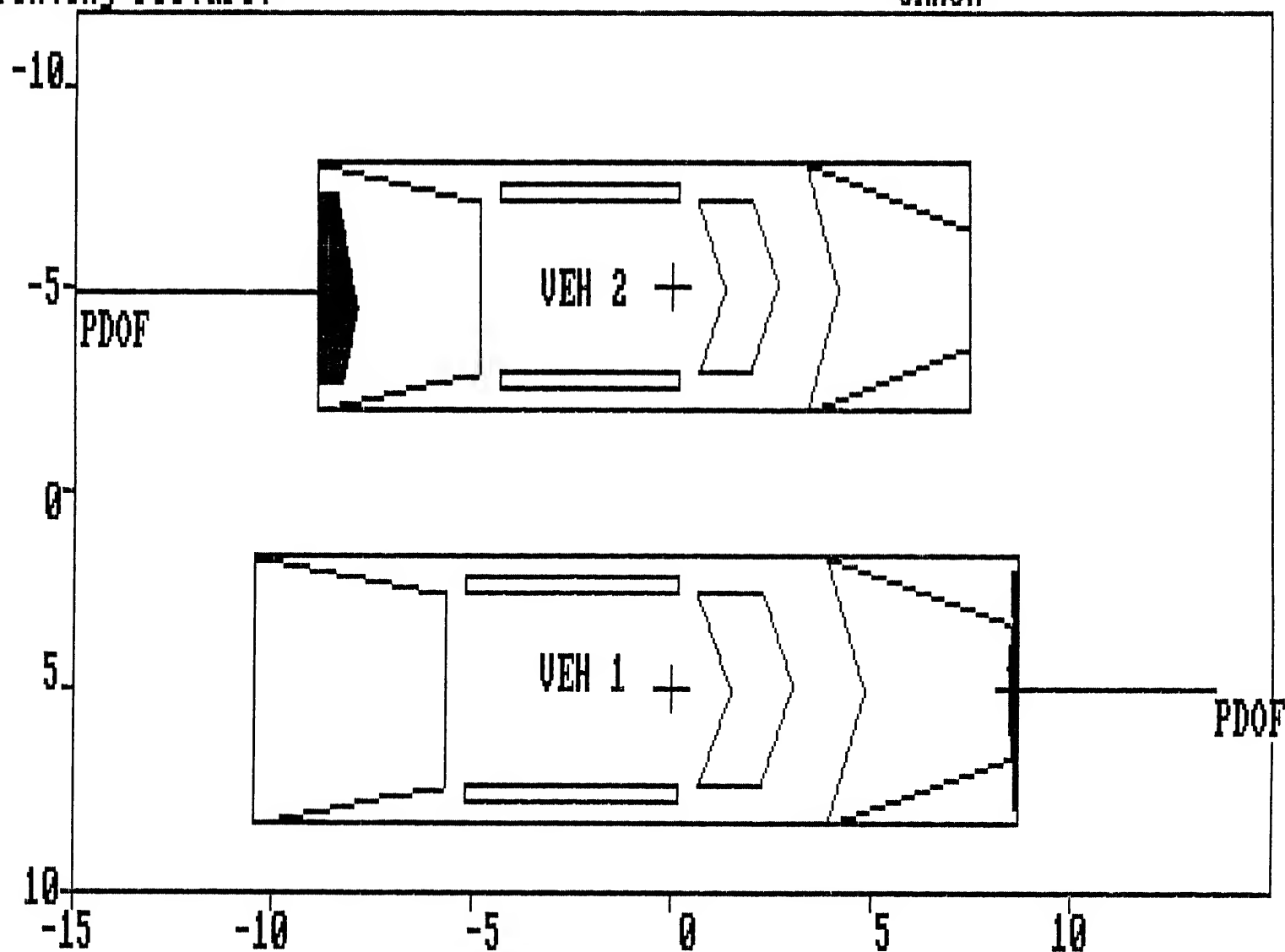
(* INDICATES DEFAULT VALUE)

DIMENSIONS AND INERTIAL PROPERTIES

	VEHICLE #1	VEHICLE #2
CG TO FRONT AXLE	153 CM. (60 IN.)	130 CM. (51 IN.)
CG TO REAR AXLE	165 CM. (65 IN.)	141 CM. (56 IN.)
TRACK	162 CM. (64 IN.)	150 CM. (59 IN.)
CG TO FRONT OF VEH	265 CM. (104 IN.)	228 CM. (90 IN.)
CG TO REAR OF VEH	-318 CM. (-125 IN.)	-270 CM. (-106 IN.)
CG TO SIDE OF VEH	101 CM. (40 IN.)	92 CM. (36 IN.)
MOMENT OF INERTIA	22425 KGS (49437 LBS)	11565 KGS (25496 LBS)
VEHICLE MASS	5 KGS (12 LBS)	3 KGS (8 LBS)

Printing Picture:

CRASH



DAMAGE DESCRIPTION

ATTACHMENT E

Air Bag Supplement

ACCIDENT SUMMARY

ACCIDENT DATE / 95

POLICE INVESTIGATED (1,2,9)*

 POLICE DEPT.City County

GENERAL LOCALITY

- (1) Freeway, Limited Access
(2) Urban (City)
(3) Urban-Rural (mixed)
(4) Rural, Fields

CONFIGURATION (First Harm)

- (0) Struck Object or Pedestrian
(1) Rear-End
(2) Head-On
(3) Rear-to-Rear
(4) Angle
(5) Sideswipe-Same Direction
(6) Sideswipe-Opposite Direct.
(7) NonColl:eg Fell from Veh
(8) Nonimpact Deployment
(9) Unknown

FIRE INVOLVED (0) None

- (1) AirBag Vehicle
(2) Other Vehicle
(3) Both Vehicles
(9) Unknown

NUMBER: VEHICLES INVOLVED

(8)=8 or more

PERSONS INVOLVED

INJURED PERSONS

MAXIMUM AIS IN ACCIDENT

OTHER VEHICLE: MAXIMUM AIS

PRIME/DEPLOY IMPACT w AB VEH:
EVENT NUMBERCDC 0 6 - B D E W - 1

TOTAL DELTA-V

19 km/h

Model Year, Make, Model, Body Type:

AIRBAG VEHICLE INSPECTION

DATE VEH. INSPECTED / 95

REASON VEHICLE NOT INSPECTED

- (0) Not Required
(1) Inspection Completed
(2) Cannot be Located**
(3) Repaired or Destroyed**
(5) Refual or Impounded**
(7) Other*

**Specify:

IMPACT DATA OBTAINED

- (0) No Data Obtained
(1) CDC Only
(2) Crush Profile Only
(3) Trajectory Data Only
(4) CDC and Crush Profile
(5) CDC and Trajectory
(6) Crush and Trajectory
(7) CDC, Crush & Trajectory

BASIS OF DELTA-V

- (0) Not Computed (Unknown Why)
(1) CRASH - Damage Only
(2) CRASH - Damage+Trajectory
(3) Missing Vehicle Algorithm
(4) Yielding Object Algorithm
(5) Unknown Basis
(6) One Vehicle Beyond Scope
(7) Collision Beyond Scope
(8) Insufficient Data

VEHICLE HISTORY

HAS AIRBAG VEHICLE BEEN IN
ANY PRIOR IMPACTS (1,2,9)*HAS ANY PRIOR MAINTENANCE/SERVICE
BEEN PERFORMED ON SYSTEM(1,2,9)**Describe: AIRBAG VEHICLE: FLEET FORD PICKUP TRUCKVIN 1 E I E X 1 SMILEAGE 19791 km

* (1)=Yes, (2)=No, (9)=Unknown

DRAFT /85

SYSTEM READINESS LAMP
(In Instrument Cluster)

PRE-IMPACT LAMP CONDITION

- (1) Functioning/ProvedOut
- (2) Inoperative
- (9) Unknown

DRIVER'S REPORT OF
PRE-IMPACT FLASHING

- (00) No Flashing Reported
- (01) Continuous Flashing
- (02) -- >Number of Flashes
- (11)
- (12) Constant Light
- (19) Flashing, Unkn Number
- (88) Not App (system removed)
- (99) Unknown

PERIOD OF PRE-IMPACT FLASHING

- (0) No Flashing
- (1) Same Day as Impact
- (2) Prior Day
- (3) Prior Two Days
- (4) Prior Week
- (5) Prior Month
- (6) Over One Month
- (9) Unknown

POST-IMPACT LAMP CONDITION

- (1) Functioning/ProvedOut
- (2) Inoperative
- (9) Unknown

POST-IMPACT FLASHING

- (00) No Flashing
- (01) Continuous Flashing
- (02) -- >Number of Flashes
- (11)
- (12) Constant Light
- (19) Flashing, Unkn Number
- (88) Not Appl (removed)
- (99) Unknown

AIRBAG VEHICLE
FIRST HARMFUL EVENT

13

- (01) Fire or explosion
- (02) Immersion
- (03) Gas Inhalation
- (04) Fell from vehicle
- (05) Injured in vehicle
- (06) Other noncollision (specify):
- (07) Overturn
- (08) Jackknife with intraunit damage
Collision With:
- (09) Pedestrian
- (10) Pedalcyclist
- (11) Railway train
- (12) Animal
- (13) Motor vehicle in transport (same roadway)
- (14) Motor vehicle in transport (other roadway)
- (15) Parked motor vehicle
- (16) Other type nonmotorist (specify):
- (17) Thrown or falling object
- (18) Boulder
- Collision with Fixed Object:
- (20) Building
- (21) Impact attenuator/Crash Cushion
- (22) Bridge pier or abutment
- (23) Bridge parapet end
- (24) Bridge rail
- (25) Guardrail
- (26) Concrete traffic barrier
- (27) Median barrier
- (28) Other longitudinal barrier (specify):
- (29) Highway/Traffic sign post
- (30) Overhead sign support
- (31) Luminaire/Light support
- (32) Utility pole
- (33) Other post, pole, or support (specify):
- (34) Culvert
- (35) Curb
- (36) Ditch
- (37) Embankment-earth
- (38) Embankment-rock, stone or concrete
- (39) Fence (wooden, wire, chain link, etc.)
- (40) Wall (stone, rock, metal, etc.)
- (41) Fire hydrant
- (42) Shrubbery
- (43) Tree
- (44) Other fixed object (specify):
- (45) Pavement surface irregularity (pothole, grooved, grates)
- (99) Unknown

AIRBAG VEHICLE IMPACT SUMMARY		FIRST AIRBAG VEHICLE IMPACT:	
VEHICLE ROLE	<u>1</u>	CONFIGURATION	<u>1</u>
(0) Non-collision (1) Striking Unit (2) Struck Unit (3) Both Striking and Struck (9) Unknown		(0) Struck Object or Pedestrian (1) Rear-End (2) Head-On (3) Rear-to-Rear (4) Angle (5) Sideswipe - Same Direction (6) Sideswipe-Opposite Direct. (7) NonColl:eg Fell from Veh (8) NonImpact Deployment (9) Unknown	
MANNER OF LEAVING SCENE	<u>2</u>	CDC <u>1 2 - F D E W - 1</u>	
(1) Driven (2) Towed-due to damage (3) Towed - not for damage (4) Towed - details unknown (5) Abandoned (9) Unknown		OBJECT CONTACTED: _____	
NUMBER OF IMPACT EVENTS	<u>1</u>	- - - - -	
(8) 8 or more, (9) Unknown		PRIMARY/DEPLOYMENT IMPACT:	
ROLLOVER (0) No Rollover (1) First Event (2) Subsequent Event (3) Yes,UnknownEvent (9) Unknown	<u>0</u>	EVENT NUMBER	<u>1</u>
		TOTAL DELTA-V <u>19 kmph</u>	<u>1 9</u>
		LONGITUDINAL DELTA-V <u>-19 kmph</u>	<u>-1 9</u>
OVERRIDE/UNDERRIDE	<u>0</u>	CONFIGURATION	<u>1</u>
(1) No over/underride (1) Override - 1st CDC (3) - Other CDC (4) Underride - 1st CDC (6) - Other CDC (9) Unknown		(0) Struck Object or Pedestrian (1) Rear-End (2) Head-On (3) Rear-to-Rear (4) Angle (5) Sideswipe - Same Direction (6) Sideswipe-Opposite Direct. (7) NonColl:eg Fell from Veh (8) NonImpact Deployment (9) Unkonwn	
AIRBAG VEHICLE DAMAGE		CDC <u>1 2 - F D E W - 1</u>	
CODES: (1) Yes, DAMAGED (2) No Damage (9) Unknown		OBJECT CONTACTED: <u>1988 CHEVROLET CORSICA</u>	
LEFT FRONT FENDER DAMAGE	<u>2</u>	NOTES:	
RIGHT FRONT FENDER DAMAGE	<u>1</u>		
CENTER TOP OF GRILLE DAMAGE	<u>1</u>		
FRONT BUMPER E.A. STATUS: Left			
(1) Normal (2) Extended (3) Partial Compression (4) Complete Compression (5) Not Applicable (9) Unknown	<u>5</u>		
	<u>5</u>		

AIRBAG SYSTEM DAMAGE

CODES: (1) Yes, Damaged*
 (2) No, Intact
 (8) Not App. (Removed)
 (9) Unknown

AIRBAG MODULE

SENSORS: Left Front

Center Front

Right Front

Rear, Cowl

DIAGNOSTIC MODULE

WIRING

KNEE DIVERTER

INDICATION OF DISCONNECTED
 OR LOOSE ELECTRICAL
 CONNECTORS

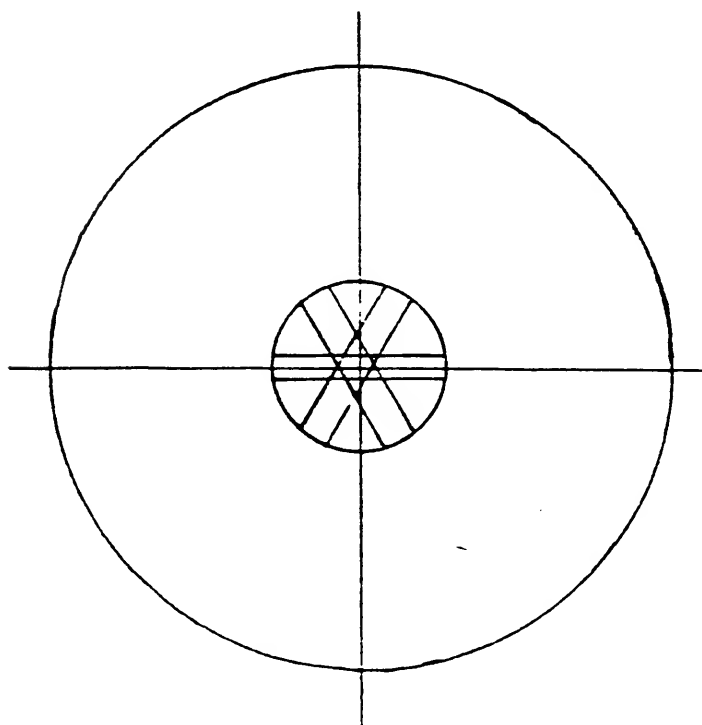
CONDITION OF DEPLOYED BAG

(1) Bag Intact
 (2) Split or Torn*
 (3) Cut by Object In Impact*
 (4) Cut after Accident*
 (5) Other (e.g., burned)*
 (8) N/A (not deployed)
 (9) Unknown

*DESCRIBE System and Bag Damage:

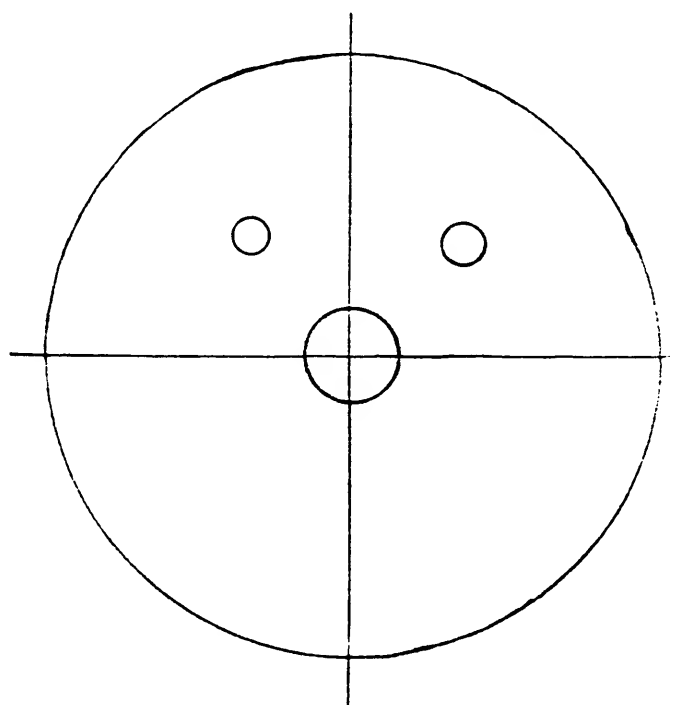
NOTE DAMAGE AND CONTACT MARKS ON AIRBAG DIAGRAMS BELOW:

REFER TO NASS
 IV FORM



FRONT

TOP



BOTTOM

BACK

OCCUPANTS of AIRBAG CAR		NOTES:
NUMBER OF OCCUPANTS IN VEHICLE (8) 8 or more	<u>1</u>	
NUMBER OF INJURED PERSONS	<u>1</u>	
MAXIMUM AIS IN AIRBAG VEHICLE	<u>5</u>	
(0) No Injury		
(1-6) AIS Severity		
(7) Injured, Unknown Severity		
(9) Unknown		
DRIVER AGE <u>56</u> SEX <u>MALE</u>		
NUMBER OF DRIVER INJURIES	<u>31</u>	
SOURCE OF BEST INJURY DATA	<u>1</u>	
(0) Not Injured		
(1) Autopsy w/wo med. records		
(2) Hospital Medical Records		
(3) Emergency Room only		
(4) Private physician, Clinic		
(5) Lay Coroner Report		
(6) EMS Personnel		
(7) Interviewee		
(8) Police		
(9) Unknown		

MAXIMUM AIS BY BODY REGION		
REGION	MAX AIS	CONTACT
Head/Neck/Face	<u>1</u>	<u>170</u>
Chest	<u>5</u>	<u>170</u> <u>175</u>
Abdomen	<u>2</u>	<u>170</u> <u>175</u>
Leg/Hips	<u>1</u>	<u>004</u>
Other (Arms)	<u>1</u>	<u>170</u> <u>170</u>
DRIVER MAXIMUM	<u>5</u>	<u>175</u>

EJECTION: Extent <u>NONE</u>		
Portal <u>NA</u>		

DRIVER BELT USAGE: (1) Used (2) Not Used (9) Unknown 2

Evidence: _____

DRIVER POSTURE: Any Comments Recorded (1) Yes, (2) No 1

Describe driver's posture and position on seat including specific comments on head, torso, buttocks, legs and feet. Also note hand and arm position. Did driver brace before crash? Describe:

REFER TO DRIVER KINEMATICS

DRIVER FOREIGN OBJECTS: Comments Recorded (1) Yes, (2) No 1

Was driver wearing contact lenses or eyeglasses? Or holding any foreign object at the time of the impact (packages on lap, pipe, food, bottle, cigarette, etc.)? Did any lenses, objects, or jewelry play any role?:

EYEGLASSES, DISPLACED FROM FACE, NOT DAMAGED

DRIVER COMMENTS: Comments Recorded (1) Yes, (2) No 1

Was the driver aware that the vehicle was equipped with a supplemental restraint system? Did driver offer any comments on smoke, noise, etc.? Did the driver comment on the airbag as a restraint system? Describe:

FATAL

PASSENGER-AIRBAG CONTACT (1) Yes, (2) No, (9) Unknown 2

Describe: NO PASSENGER

ATTACHMENT F

NASS Vehicle Forms



GENERAL VEHICLE FORM

1. ~~Primary Sampling Unit Number~~ _____
2. Case Number - Stratum 9502
3. Vehicle Number 01

VEHICLE IDENTIFICATION

4. Vehicle Model Year 94
Code the last two digits of the model year
(99) Unknown
5. Vehicle Make (specify): 12
FORD
Applicable codes are found in your
NASS Data Collection, Coding and
Editing Manual.
(99) Unknown
6. Vehicle Model (specify): 481
F150 EXTENDED CAB PICKUP
Applicable codes are found in your
NASS Data Collection, Coding and
Editing Manual.
(999) Unknown
7. Body Type 31
Note: Applicable codes may be found on
the back of this page.
8. Vehicle Identification Number
1FTEX15N2RK6
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
Left justify; Slash zeros and letter Z (0 and-Z)
No VIN—Code all zeros Unknown—Code all nines
9. Vehicle Special Use (This Trip) 0
(0) No special use
(1) Taxi
(2) Vehicle used as school bus
(3) Vehicle used as other bus
(4) Military
(5) Police
(6) Ambulance
(7) Fire truck or car
(8) Other (specify): _____
(9) Unknown

OFFICIAL RECORDS

10. Police Reported Vehicle Disposition 1
(0) Not towed due to vehicle damage
(1) Towed due to vehicle damage
(9) Unknown
11. Police Reported Travel Speed 999
Code to the nearest kmph (NOTE: 000 means
less than 0.5 kmph)
(160) 159.5 kmph and above
(999) Unknown

____ mph X 1.6093 = ____ kmph

12. Speed Limit 064
(000) No statutory limit
Code posted or statutory speed limit
in kmph
(999) Unknown

40 mph X 1.6093 = 064 kmph
13. Police Reported Alcohol Presence For Driver 0
(0) No alcohol present
(1) Yes alcohol present
(7) Not reported
(8) No driver present
(9) Unknown
14. Alcohol Test Result For Driver 96
Code actual value (decimal implied
before first digit—0.xx)
(95) Test refused
(96) None given
(97) AC test performed, results unknown
(98) No driver present
(99) Unknown

Source: _____
15. Police Reported Other Drug Presence For Driver 0
(0) No other drug(s) present
(1) Yes other drug(s) present
(7) Not reported
(8) No driver present
(9) Unknown
16. Other Drug Specimen Test Result For Driver 0
(0) No specimen test given
(1) Drug(s) not found in specimen
(2) Drug(s) found in specimen, (specify):

(3) Specimen test given, results unknown or not
obtained
(8) No driver present
(9) Unknown if specimen test given
17. Driver's Zip Code ██████████
(00001) Driver not a resident of U.S. or territories
Code actual 5-digit zip code
(99998) No driver present
(99999) Unknown
18. Driver's Race/Ethnic Origin 1
(1) White (non-Hispanic)
(2) Black (non-Hispanic)
(3) White (Hispanic)
(4) Black (Hispanic)
(5) American Indian, Eskimo or Aleut
(6) Asian or Pacific Islander
(7) Other (specify): _____

(8) No driver present
(9) Unknown

CODES FOR BODY TYPE

CDS APPLICABLE VEHICLES

Automobiles

- (01) Convertible (excludes sun-roof, t-bar)
- (02) 2-door sedan, hardtop, coupe
- (03) 3-door/2-door hatchback
- (04) 4-door sedan, hardtop
- (05) 5-door/4-door hatchback
- (06) Station wagon (excluding van and truck based)
- (07) Hatchback, number of doors unknown
- (08) Other automobile type (specify): _____
- (09) Unknown automobile type

Automobile Derivatives

- (10) Auto based pickup (includes El Camino, Caballero, Ranchero, Brat, and Rabbit pickup)
- (11) Auto based panel (cargo station wagon, auto based ambulance/hearse)
- (12) Large limousine - more than four side doors or stretched chassis
- (13) Three-wheel automobile or automobile derivative

Utility Vehicles ($\leq 4,500$ kgs GVWR)

- (14) Compact utility (Jeep CJ-2 - CJ-7, Scrambler, Golden Eagle, Renegade, Laredo, Wrangler, Cherokee [84 and after], Dispatcher, Raider, Bronco II, Bronco [76 and before], Explorer, S-10 Blazer, Geo Tracker, Bravada, S-15 Jimmy, Thing, Pathfinder, Trooper, Trooper II, Rodeo, Amigo, Navajo, 4-Runner, Montero, Passport, Samurai, Sidekick, Rocky)
- (15) Large utility (includes Jeep Cherokee [83 and before], Ramcharger, Trailduster, Bronco-fullsize [78 and after], fullsize Blazer, fullsize Jimmy, Hummer, Landcruiser, Rover, Scout, Yukon)
- (16) Utility station wagon (Chevy Suburban, GMC Suburban, Travelall, Grand Wagoneer, includes suburban limousine)
- (19) Utility, unknown body type

Van Based Light Trucks ($\leq 4,500$ kgs GVWR)

- (20) Minivan (Town and Country, Caravan, Grand Caravan, Voyager, Grand Voyager, Mini-Ram, Vista, Aerostar, Windstar, Villager, Lumina APV, Trans Sport, Silhouette, Astro, Safari, Toyota Van, Toyota Minivan, Previa, Nissan Minivan, Quest, Mitsubishi Minivan, Expo Wagon, Vanagon/Camper.)
- (21) Large van (B150-B350, Sportsman, Royal, Maxiwagon, Ram, Tradesman, Voyager [83 and before], E150-E350, Econoline, Clubwagon, Chateau, G10-G30, Chevy Van, Beauville, Sport Van, G15-G35, Rally Van, Vandura.)
- (22) Step van or walk-in van ($\leq 4,500$ kgs GVWR)
- (23) Van based motorhome ($\leq 4,500$ kgs GVWR)
- (24) Van based school bus ($\leq 4,500$ kgs GVWR)
- (25) Van based other bus ($\leq 4,500$ kgs GVWR)
- (28) Other van type (Hi-Cube Van, Kary) (specify): _____

- (29) Unknown van type

Light Conventional Trucks (Pickup style cab, $\leq 4,500$ kgs GVWR)

- (30) Compact pickup (D50, Colt P/U, Ram 50, Dakota, Arrow Pickup [foreign], Ranger, Courier, S-10, T-10, LUV, S-15, T-15, Sonoma, Datsun/Nissan Pickup, P'up, Mazda Pickup, Toyota Pickup, Mitsubishi Pickup)
- (31) Large Pickup (Jeep Pickup, Comanche, Ram Pickup, D100-D350, W100-W350, F100-F350, C10-C35, K10-K35, R10-R35, V10-V35, Silverado, Sierra, R100-R500, T100)

- (32) Pickup with slide-in camper
- (33) Convertible pickup
- (39) Unknown pickup style light conventional truck type

Other Light Trucks ($\leq 4,500$ kgs GVWR)

- (40) Cab chassis based (includes rescue vehicles, light stake, dump, and tow truck)
- (41) Truck based panel
- (42) Light truck based motorhome (chassis mounted)
- (45) Other light conventional truck type
- (48) Unknown light truck type
- (49) Unknown light vehicle type (automobile, utility, van, or light truck)

OTHER VEHICLES

Buses (Excludes Van Based)

- (50) School bus (designed to carry students, not cross country or transit)
- (58) Other bus type (e.g., transit, intercity, bus based motorhome) (specify): _____
- (59) Unknown bus type

Medium/Heavy Trucks ($> 4,500$ kgs GVWR)

- (60) Step van ($> 4,500$ kgs GVWR)
- (61) Single unit straight truck ($4,500$ kgs $<$ GVWR $\leq 8,850$ kgs)
- (62) Single unit straight truck ($8,850$ kgs $<$ GVWR $\leq 12,000$ kgs)
- (63) Single unit straight truck ($> 12,000$ kgs GVWR)
- (64) Single unit straight truck, GVWR unknown
- (65) Medium/heavy truck based motorhome
- (67) Truck-tractor with no cargo trailer
- (68) Truck-tractor pulling one trailer
- (69) Truck-tractor pulling two or more trailers
- (70) Truck-tractor (unknown if pulling trailer)
- (78) Unknown medium/heavy truck type
- (79) Unknown truck type (light/medium/heavy)

Motored Cycles (Does Not Include All-Terrain Vehicles/Cycles)

- (80) Motorcycle
- (81) Moped (motorized bicycle)
- (82) Three-wheel motorcycle or moped
- (88) Other motored cycle (minibike, motorscooter) (specify): _____
- (89) Unknown motored cycle type

Other Vehicles

- (90) ATV (All-Terrain Vehicle) and ATC (All-Terrain Cycle)
- (91) Snowmobile
- (92) Farm equipment other than trucks
- (93) Construction equipment other than trucks
- (97) Other vehicle type
- (99) Unknown body type

PRECRASH ENVIRONMENTAL DATA

<p>19. Relation To Interchange Or Junction <u>0</u></p> <p>(0) Non-interchange area and non-junction</p> <p>(1) Interchange area related</p> <p><i>Non-Interchange junctions</i></p> <p>(2) Intersection related</p> <p>(3) Driveway, alley access related</p> <p>(4) Other junction (specify) _____</p> <p>(5) Unknown type of junction _____</p> <p>(9) Unknown</p>	<p>25. Roadway Surface Condition <u>1</u></p> <p>(1) Dry</p> <p>(2) Wet</p> <p>(3) Snow or slush</p> <p>(4) Ice</p> <p>(5) Sand, dirt, or oil</p> <p>(8) Other (specify): _____</p> <p>(9) Unknown</p>
<p>20. Trafficway Flow <u>1</u></p> <p>(0) Not physically divided (two way traffic)</p> <p>(1) Divided trafficway-median strip without positive barrier</p> <p>(2) Divided trafficway-median strip with positive barrier</p> <p>(3) One way traffic</p> <p>(9) Unknown</p>	<p>26. Light Conditions <u>1</u></p> <p>(1) Daylight</p> <p>(2) Dark</p> <p>(3) Dark, but lighted</p> <p>(4) Dawn</p> <p>(5) Dusk</p> <p>(9) Unknown</p>
<p>21. Number Of Travel Lanes <u>2</u></p> <p>(1) One</p> <p>(2) Two</p> <p>(3) Three</p> <p>(4) Four</p> <p>(5) Five</p> <p>(6) Six</p> <p>(7) Seven or more</p> <p>(9) Unknown</p>	<p>27. Atmospheric Conditions <u>0</u></p> <p>(0) No adverse atmospheric-related driving conditions</p> <p>(1) Rain</p> <p>(2) Sleet/hail</p> <p>(3) Snow</p> <p>(4) Fog</p> <p>(5) Rain and fog</p> <p>(6) Sleet and fog</p> <p>(7) Other (e.g., smog, smoke, blowing sand or dust, etc.) (specify): _____</p> <p>(9) Unknown</p>
<p>22. Roadway Alignment <u>1</u></p> <p>(1) Straight</p> <p>(2) Curve right</p> <p>(3) Curve left</p> <p>(9) Unknown</p>	<p>28. Traffic Control Device <u>0</u></p> <p>(0) No traffic control(s)</p> <p>(1) Traffic control signal (not RR crossing)</p> <p><i>Regulatory</i></p> <p>(2) Stop sign</p> <p>(3) Yield sign</p> <p>(4) School zone sign</p> <p>(5) Other regulatory sign (specify): _____</p>
<p>23. Roadway Profile <u>1</u></p> <p>(1) Level</p> <p>(2) Uphill grade (> 2%)</p> <p>(3) Hill crest</p> <p>(4) Downhill grade (> 2%)</p> <p>(5) Sag</p> <p>(9) Unknown</p>	<p>(6) Warning sign (not RR crossing)</p> <p>(7) Unknown sign</p> <p>(8) Miscellaneous/other controls including RR controls (specify): _____</p> <p>(9) Unknown</p>
<p>24. Roadway Surface Type <u>2</u></p> <p>(1) Concrete</p> <p>(2) Bituminous (asphalt)</p> <p>(3) Brick or block</p> <p>(4) Slag, gravel, or stone</p> <p>(5) Dirt</p> <p>(8) Other (specify): _____</p> <p>(9) Unknown</p>	<p>29. Traffic Control Device Functioning <u>0</u></p> <p>(0) No traffic control device</p> <p>(1) Traffic control device not functioning (specify): _____</p> <p>(2) Traffic control device functioning properly</p> <p>(9) Unknown</p>

PRECRASH DRIVER RELATED DATA

30. Driver's Distraction/Inattention To Driving 99
 (Prior To Recognition Of Critical Event)
 (00) No driver present
 (01) Attentive or not distracted
 (02) Looked but did not see
- Distractions*
 (03) By other occupant(s), (specify): _____
 (04) By moving object in vehicle (specify): _____
 (05) While talking or listening to cellular phone
 (specify location and type of phone): _____
 (06) While dialing cellular phone (specify location
 and type of phone): _____
 (07) While adjusting climate controls
 (08) While adjusting radio, cassette, CD (specify): _____
 (09) While using other device/object in vehicle
 (specify): _____
 (10) Sleepy or fell asleep
 (11) Distracted by outside person, object, or event
 (specify): _____
 (12) Eating or drinking
 (13) Smoking related
 (97) Distracted/inattentive, details unknown
 (98) Other, distraction (specify): _____
 (99) Unknown
31. Pre-Event Movement (Prior to
 Recognition of Critical Event) 01
 (00) No driver present
 (01) Going straight
 (02) Decelerating in traffic lane
 (03) Accelerating in traffic lane
 (04) Starting in traffic lane
 (05) Stopped in traffic lane
 (06) Passing or overtaking another vehicle
 (07) Disabled or parked in travel lane
 (08) Leaving a parking position
 (09) Entering a parking position
 (10) Turning right
 (11) Turning left
 (12) Making a U-turn
 (13) Backing up (other than for parking position)
 (14) Negotiating a curve
 (15) Changing lanes
 (16) Merging
 (17) Successful avoidance maneuver to a previous
 critical event
 (97) Other (specify): _____
 (99) Unknown
32. Critical Precrash Event 50
This Vehicle Loss of Control Due To:
 (01) Blow out or flat tire
 (02) Stalled engine
 (03) Disabling vehicle failure (e.g., wheel fell off)
 (specify): _____
 (04) Non-disabling vehicle problem (e.g., hood flew
 up) (specify): _____
 (05) Poor road conditions (puddle, pot hole, ice, etc.)
 (specify): _____
 (06) Traveling too fast for conditions
 (08) Other cause of control loss (specify): _____
 (09) Unknown cause of control loss

This Vehicle Traveling

- (10) Over the lane line on left side of travel lane
 (11) Over the lane line on right side of travel lane
 (12) Off the edge of the road on the left side
 (13) Off the edge of the road on the right side
 (14) End departure
 (15) Turning left at intersection
 (16) Turning right at intersection
 (17) Crossing over (passing through) intersection
 (18) This vehicle decelerating
 (19) Unknown travel direction

Other Motor Vehicle In Lane

- (50) Other vehicle stopped
 (51) Traveling in same direction with lower steady
 speed
 (52) Traveling in same direction while decelerating
 (53) Traveling in same direction with higher speed
 (54) Traveling in opposite direction
 (55) In crossover
 (56) Backing
 (59) Unknown travel direction of other motor
 vehicle in lane

Other Motor Vehicle Encroaching Into Lane

- (60) From adjacent lane (same direction)—over left
 lane line
 (61) From adjacent lane (same direction)—over right
 lane line
 (62) From opposite direction—over left lane line
 (63) From opposite direction—over right lane line
 (64) From parking lane
 (65) From crossing street, turning into same
 direction
 (66) From crossing street, across path
 (67) From crossing street, turning into opposite
 direction
 (68) From crossing street, intended path not known
 (70) From driveway, turning into same direction
 (71) From driveway, across path
 (72) From driveway, turning into opposite direction
 (73) From driveway, intended path not known
 (74) From entrance to limited access highway
 (78) Encroachment by other vehicle—details
 unknown

Pedestrian, Pedalcyclist, or Other Nonmotorist

- (80) Pedestrian in roadway
 (81) Pedestrian approaching roadway
 (82) Pedestrian—unknown location
 (83) Pedalcyclist or other nonmotorist in roadway
 (specify): _____
 (84) Pedalcyclist or other nonmotorist approaching
 roadway, (specify): _____
 (85) Pedalcyclist or other nonmotorist—unknown
 location (specify): _____

Object or Animal

- (87) Animal in roadway
 (88) Animal approaching roadway
 (89) Animal—unknown location
 (90) Object in roadway
 (91) Object approaching roadway
 (92) Object—unknown location
 (98) Other critical precrash event (specify): _____
 (99) Unknown

33. Attempted Avoidance Maneuver

02

- (00) No driver present
- (01) No avoidance maneuver
- (02) Braking (no lockup)
- (03) Braking (lockup)
- (04) Braking (lockup unknown)
- (05) Releasing brakes
- (06) Steering left
- (07) Steering right
- (08) Braking and steering left
- (09) Braking and steering right
- (10) Accelerating
- (11) Accelerating and steering left
- (12) Accelerating and steering right
- (98) Other action (specify):

(99) Unknown

34. Pre-Impact Stability

1

- (0) No driver present
- (1) Tracking
- (2) Skidding longitudinally—rotation less than 30 degrees
- (3) Skidding laterally—clockwise rotation
- (4) Skidding laterally—counterclockwise rotation
- (7) Other vehicle loss-of-control (specify):

(9) Pre-crash stability unknown

35. Pre-Impact Location

1

- (0) No driver present
- (1) Stayed in original travel lane
- (2) Stayed on roadway but left original travel lane
- (3) Stayed on roadway, not known if left original travel lane
- (4) Departed roadway
- (5) Remained off roadway
- (6) Returned to roadway
- (7) Entered roadway
- (9) Unknown

36. Accident Type

20

(Note: Applicable codes on back of this page)

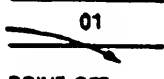
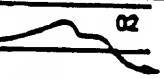



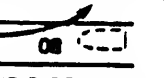

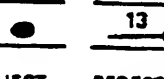
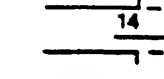

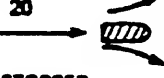
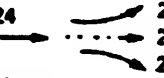
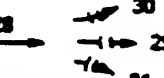
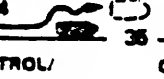
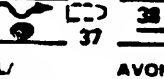
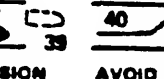
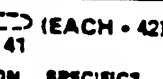
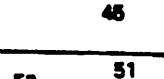
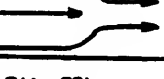
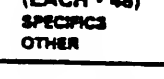
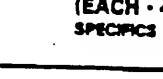
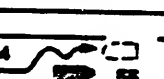
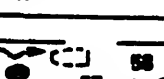
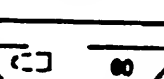
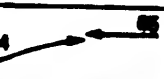
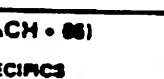
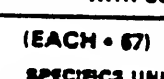
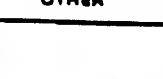
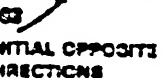
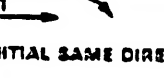

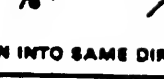
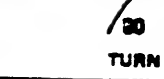


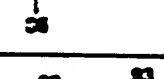
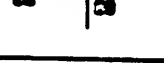
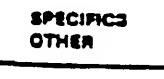
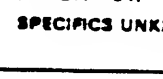
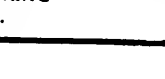

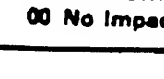
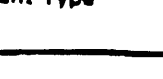





- (00) No impact

Code the number of the diagram that best describes the accident circumstance

- (98) Other accident type (specify):

(99) Unknown

STOP HERE IF GV07 DOES NOT EQUAL 01 - 49

Category	Configuration	ACCIDENT TYPES (Includes Intent)				
I Single Driver	A Right Roadside Departure	 01 DRIVE OFF ROAD	 02 CONTROL/ TRACTION LOSS	 03 AVOID COLLISION WITH VEH.. PED.. ANIM.	04 SPECIFICS OTHER	05 SPECIFICS UNKNOWN
	B Left Roadside Departure	 06 DRIVE OFF ROAD	 07 CONTROL/ TRACTION LOSS	 08 AVOID COLLISION WITH VEH.. PED.. ANIM.	09 SPECIFICS OTHER	10 SPECIFICS UNKNOWN
	C Forward Impact	 11 PARKED VEH.	 12 STA. OBJECT	 13 PEDESTRIAN/ ANIMAL	 14 END DEPARTURE	15 SPECIFICS OTHER 16 SPECIFICS UNKNOWN
II Same Trafficway Same Direction	D Rear-End	 20 STOPPED 21, 22, 23	 24 SLOWER 25, 26, 27	 28 DECEL. 29, 30, 31	30 SPECIFICS OTHER 31 SPECIFICS UNKNOWN	(EACH • 32) (EACH • 33)
	E Forward Impact	 34 CONTROL/ TRACTION LOSS	 36 CONTROL/ TRACTION LOSS	 38 AVOID COLLISION WITH VEH.	 40 AVOID COLLISION WITH OBJECT	(EACH • 42) (EACH • 43)
	F Sideswipe Angle	 44 45 46 47	 46 47	 48 49	 49	(EACH • 48) SPECIFICS OTHER (EACH • 49) SPECIFICS UNKNOWN
III Same Trafficway Opposite Direction	G Head-On	 50 LATERAL MOVE	 51 (EACH • 52) SPECIFICS OTHER	 53 (EACH • 53) SPECIFICS UNKNOWN		
	H Forward Impact	 54 CONTROL/ TRACTION LOSS	 56 CONTROL/ TRACTION LOSS	 58 AVOID COLLISION WITH VEH.	 60 AVOID COLLISION WITH OBJECT	(EACH • 52) (EACH • 53)
	I Sideswipe Angle	 64 LATERAL MOVE	 65 (EACH • 66) SPECIFICS OTHER	 67 (EACH • 67) SPECIFICS UNKNOWN		
IV Change Trafficway Vehicle Turning	J Turn Across Path	 69 INITIAL OPPOSITE DIRECTIONS	 71 INITIAL SAME DIRECTIONS	 73 72	 74	(EACH • 74) (EACH • 75)
	K Turn Into Path	 77 78 TURN INTO SAME DIRECTION	 79 80 TURN INTO OPPOSITE DIRECTIONS	 81 82	 83	(EACH • 84) (EACH • 85)
V Intersecting Paths (Vehicle Damage)	L Straight Paths	 87 88	 89 90	 91 (EACH • 90) SPECIFICS OTHER	 92 (EACH • 91) SPECIFICS UNKNOWN	
VI Miscellaneous	M Backing Etc	 93 BACKING VEH.	 94 OTHER VEH. OR OBJECT	 96 Other Accident Type	 97 Unknown Accident Type	 98 No Impact

National Accident Sampling System-Crashworthiness Data System: General Vehicle Form

Page 5

OCCUPANT RELATED

37. Driver Presence in Vehicle 1
 (0) Driver not present
 (1) Driver present
 (9) Unknown
38. Number of Occupants This Vehicle 01
 (00-96) Code actual number of occupants for this vehicle
 (97) 97 or more
 (99) Unknown
39. Number of Occupant Forms Submitted 01

AIR BAG RELATED

40. Is this an AOPS Vehicle? 1
 (0) No (includes unknown)
 (1) Yes - researcher determined
 (2) VIN determined air bag system
 (3) VIN determined automatic (passive) belts
 (4) VIN determined air bag and automatic (passive) belts
41. Air Bag(s) Deployment, First Seat Frontal 2
 (0) Not equipped or not available
 (1) No air bags deployed
Single Air Bag Vehicle
 (2) Driver air bag deployed
 (3) Driver air bag, unknown if deployed
Multiple Air Bag Vehicle
 (4) Driver side only deployed
 (5) Passenger side only deployed
 (6) Driver and passenger side deployed
 (7) Driver and passenger side unknown if deployed
 (8) Air bag(s) deployed, details unknown
 (9) Unknown
42. Air Bag(s) Deployment, Other Than First Seat Frontal 0
 (0) Not equipped with an "other" air bag
 (1) Deployed during accident (as a result of impact)
 (2) Deployed inadvertently just prior to accident
 (3) Deployed, details unknown
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
 (5) Unknown if deployed
 (7) Nondeployed
 (9) Unknown

Specify type of "other" air bag present: _____

VEHICLE WEIGHT ITEMS

43. Vehicle Curb Weight 1,900
 _____ Code weight to nearest 10 kilograms.
 (045) Less than 450 kilograms
 (610) 6,100 kilograms or more
 (999) Unknown
4,196 lbs X .4536 = 1,903 kgs

Source: _____

44. Vehicle Cargo Weight 1,000
 _____ Code weight to nearest 10 kilograms.
 (000) Less than 5 kilograms
 (450) 4,500 kilograms or more
 (999) Unknown

_____, _____ lbs X .4536 = _____ kgs

Source: _____ PHOTOS

ROLLOVER DATA

45. Rollover 00
 (00) No rollover (no overturning)
Rollover (primarily about the longitudinal axis)
 (01-16) Code the number of quarter turns
 (17) Rollover, 17 or more quarter turns (specify): _____
 (98) Rollover--end-over-end (i.e., primarily about the lateral axis)
 (99) Rollover (overturn), details unknown
46. Rollover Initiation Type 00
 (00) No rollover
 (01) Trip-over
 (02) Flip-over
 (03) Turn-over
 (04) Climb-over
 (05) Fall-over
 (06) Bounce-over
 (07) Collision with another vehicle
 (08) Other rollover initiation type specify): _____
 (98) Rollover--end-over-end
 (99) Unknown rollover initiation type
47. Location of Rollover Initiation 0
 (0) No rollover
 (1) On roadway
 (2) On shoulder--paved
 (3) On shoulder--unpaved
 (4) On roadside or divided trafficway median
 (8) Rollover--end-over-end
 (9) Unknown
48. Rollover Initiation Object Contacted 00
 (Note: Applicable codes on back of page)
49. Location on Vehicle Where Initial Principal Tripping Force Is Applied 0
 (0) No rollover
 (1) Wheels/tires
 (2) Side plane
 (3) End plane
 (4) Undercarriage
 (5) Other location on vehicle (specify): _____
 (6) Non-contact rollover forces (specify): _____
 (8) Rollover--end-over-end
 (9) Unknown
50. Direction of Initial Roll 0
 (0) No rollover
 (1) Roll right - primarily about the longitudinal axis
 (2) Roll left - primarily about the longitudinal axis
 (8) Rollover--end-over-end
 (9) Unknown roll direction

CODES FOR ROLLOVER INITIATION OBJECT CONTACTED

- (00) No rollover
- (01-30) — Vehicle Number

Noncollision

- (31) Turn-over — fall-over
- (32) No rollover impact initiation (end-over-end)
- (34) Jackknife

Collision With Fixed Object

- (41) Tree (≤ 10 cm in diameter)
- (42) Tree (> 10 cm in diameter)
- (43) Shrubbery or bush
- (44) Embankment

- (45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post

- (50) Pole or post (≤ 10 cm in diameter)
- (51) Pole or post (> 10 cm but ≤ 30 cm in diameter)
- (52) Pole or post (> 30 cm in diameter)
- (53) Pole or post (diameter unknown)

- (54) Concrete traffic barrier
- (55) Impact attenuator
- (56) Other traffic barrier (includes guardrail)
(specify): _____

- (57) Fence
- (58) Wall
- (59) Building
- (60) Ditch or culvert
- (61) Ground
- (62) Fire hydrant
- (63) Curb
- (64) Bridge
- (68) Other fixed object (specify): _____

- (69) Unknown fixed object _____

Collision with Nonfixed Object

- (70) Passenger car, light truck, van, or other vehicle not in-transport
- (71) Medium/heavy truck or bus not in-transport
- (76) Animal
- (77) Train
- (78) Trailer, disconnected in transport
- (79) Object fell from vehicle in-transport
- (88) Other nonfixed object (specify): _____

- (89) Unknown nonfixed object _____

- (98) Other event (specify): _____

- (99) Unknown event or object _____

VERRIDE/UNDERRIDE (THIS VEHICLE)

51. Front Override/Underride (this Vehicle) 0
52. Rear Override/Underride (this Vehicle) 0
- (0) No override/underride, or not an end-to-end impact between two CDS applicable vehicles, and no medium/heavy truck or bus underride
- Override (see specific CDC)*
[Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49)]
- (1) 1st CDC
 (2) 2nd CDC
 (3) Other not automated CDC (specify): _____
- Underride (see specific CDC)*
[Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49)]
- (4) 1st CDC
 (5) 2nd CDC
 (6) Other not automated CDC (specify): _____
- (7) Medium/heavy truck or bus override (of any configuration)
 (9) Unknown

HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

Values: (000)-(359) Code actual value
 (997) Noncollision
 (998) Impact with object
 (999) Unknown

53. Heading Angle For This Vehicle 0 9 0
54. Heading Angle For Other Vehicle 0 9 0

RECONSTRUCTION DATA

55. Towed Trailing Unit 0
- (0) No towed unit
 (1) Yes—towed trailing unit
 (9) Unknown
56. Documentation of Trajectory Data for This Vehicle 0
- (0) No
 (1) Yes
57. Post Collision Condition of Tree or Pole (For Highest Delta V) 0
- (0) Not collision (for highest delta V) with tree or pole
 (1) Not damaged
 (2) Cracked/sheared
 (3) Tilted < 45 degrees
 (4) Tilted ≥ 45 degrees
 (5) Uprooted tree
 (6) Separated pole from base
 (7) Pole replaced
 (8) Other (specify): _____
- (9) Unknown

ACCIDENT RECONSTRUCTION PROGRAMS HIGHEST DELTA V

58. Basis for Total (Resultant) Delta V (highest) 0 1

(00) No vehicle inspection

Delta V Calculated

- (01) Reconstruction program
 -damage only routine
 (02) Reconstruction program
 -damage and trajectory routine
 (03) Missing vehicle algorithm

Delta V Not Calculated

- (04) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.

All vehicles within scope (CDC applicable) of reconstruction program but one of the collision conditions is beyond the scope of the reconstruction program or other acceptable reconstruction technique, regardless of adequacy of damage data.

- (05) Rollover
 (06) Other non-horizontal forces
 (07) Sideswipe type damage
 (08) Severe override
 (09) Yielding object
 (10) Overlapping damage
 (11) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available, (specify): _____

- (98) Other, (specify): _____

COMPUTER GENERATED CRASH SEVERITY

59. Total Delta V

0 1 9

Highest

____ Nearest kmph (highest)

____ Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)
 (160) 159.5 kmph and above
 (999) Unknown

60. Longitudinal Component of Delta V

+ 0 1 9

Highest

____ Nearest kmph (highest)

____ Nearest kmph (secondary)

(NOTE: __000 means greater than
 -0.5 kmph and less than +0.5 kmph)
 (±160) ±159.5 kmph and above
 (__999) Unknown

61. Lateral Component of Delta V

+ 0 0 0

Highest

____ Nearest kmph (highest)

____ Nearest kmph (secondary)

(NOTE: __000 means greater than -0.5 kmph
 and less than +0.5 kmph)
 (±160) ±159.5 kmph and above
 (__999) Unknown

62. Energy Absorption

0 2 6 4 0 026414 Nearest 100 joules (highest)

____ Nearest 100 joules (secondary)

(NOTE: 0000 means less than 50 joules)
 (9997) 999,650 joules or more
 (9999) Unknown

63. Impact Speed

9 9 8

____ Nearest kmph (highest)

____ Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)
 (160) 159.5 kmph and above
 (998) Trajectory algorithm not run
 (999) Unknown

DELTA V CONFIDENCE LEVEL

64. Confidence In Reconstruction Program Results (For Highest Delta V)

1

- (0) No reconstruction
 (1) Collision fits model — results appear reasonable
 (2) Collision fits model — results appear high
 (3) Collision fits model — results appear low
 (4) Borderline reconstruction — results appear reasonable

OTHER SPEED ESTIMATE

65. Barrier Equivalent Speed

Highest

9 9 9

____ Nearest kmph (highest)

____ Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)
 (160) 159.5 kmph and above
 (999) Unknown

IS MISSING VEHICLE ALGORITHM APPLICABLE FOR THIS VEHICLE? [] YES [] NO

IF YES: IS A COMPLETED PROGRAM SUMMARY INCLUDED? [] YES [] NO

ESTIMATED DELTA V	VEHICLE INSPECTION
66. Estimated Highest Delta V (Researcher Determined) <u>0</u> (0) Reconstruction Delta V coded <i>Estimated Delta V</i> (1) Less than 10 kmph (2) ≥ 10 kmph but < 25 kmph (3) ≥ 25 kmph but < 40 kmph (4) ≥ 40 kmph but < 55 kmph (5) ≥ 55 kmph <i>Other estimates of damage severity</i> (6) Minor (7) Moderate (8) Severe (9) Unknown	67. Type of Vehicle Inspection <u>3</u> (0) No inspection (1) Vehicle fully repaired-no damage evident (2) Partial inspection (specify): (3) Complete inspection

*** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV67 = 0), ***

DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS

*** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE ***

THE EXTERIOR VEHICLE, INTERIOR VEHICLE,
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.

EXTERIOR VEHICLE FORM

**NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM**

1. Primary Sampling Unit Number		3. Vehicle Number	
2. Case Number - Stratum			
9502		01	

VEHICLE IDENTIFICATION

VIN 1FTEX1SN2RK Model Year 94
Vehicle Make (specify): FORD Vehicle Model (specify): F-150 SUPERCAR

LOCATOR

Locate the end of the damage with respect to the vehicle longitudinal center line or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L	Location of Max Crush
1	FRONT BUMPER 139.7 cm (55.0")	FULL WIDTH OF FRONT BUMPER	CENTER OF BUMPER AT LICENSE PLATE FRAME

CRUSH PROFILE IN CENTIMETERS

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

Use as many lines/columns as necessary to describe each damage profile.

[illegible]

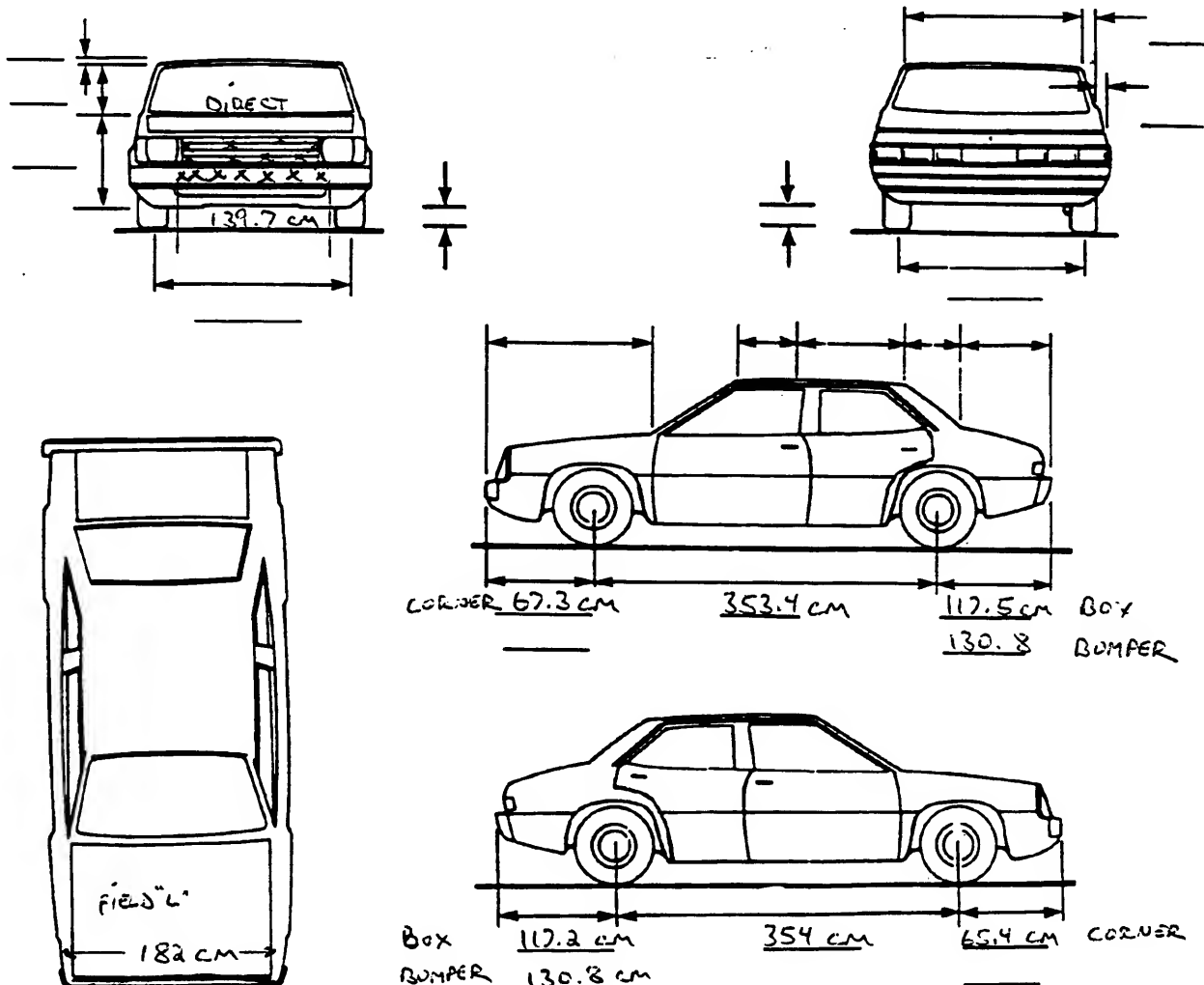
ORIGINAL SPECIFICATIONS WORK SHEET

Wheelbase	<u>138.8</u> inches	x 2.54	=	<u>353</u> cm
Overall Length	<u>219.1</u> inches	x 2.54	=	<u>557</u> cm
Maximum Width	<u>79.0</u> inches	x 2.54	=	<u>201</u> cm
Curb Weight	<u>4,196</u> pounds	x .4536	=	<u>1,903</u> kg
Average Track	<u> </u> inches	x 2.54	=	<u> </u> cm
Front Overhang	<u>33.5</u> inches	x 2.54	=	<u>085</u> cm
Rear Overhang	<u>46.8</u> inches	x 2.54	=	<u>119</u> cm
Undeformed End Width	<u>71.8</u> inches	x 2.54	=	<u>182</u> cm
Engine Size: cyl./displ.	<u> </u> cc	x .001	=	<u> </u> L
	<u>302</u> CID	x .0164	=	<u>5.0</u> L

VEHICLE DAMAGE SKETCH

TIRE—WHEEL DAMAGE a. Rotation physically restricted RF <u>2</u> LF <u>2</u> RR <u>2</u> LR <u>2</u> (1) Yes (2) No (8) NA (9) Unk.		ORIGINAL SPECIFICATIONS Wheelbase <u>353</u> cm Overall Length <u>557</u> cm Maximum Width <u>201</u> cm Curb Weight <u>1903</u> kg Average Track _____ cm Front Overhang <u>85</u> cm Rear Overhang <u>119</u> cm Undeformed End Width <u>182</u> cm Engine Size: cyl./displ. <u>5.0</u> L		WHEEL STEER ANGLES (For locked front wheels or displaced rear axles only) RF ± _____ ° LF ± _____ ° RR ± _____ ° LR ± _____ ° Within ± 5 degrees
TYPE OF TRANSMISSION <input type="checkbox"/> Manual <input checked="" type="checkbox"/> Automatic END SHIFT ≥ 10 CM <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		DRIVE WHEELS <input type="checkbox"/> FWD <input checked="" type="checkbox"/> RWD <input type="checkbox"/> 4WD Approximate Cargo Weight <u>N/A</u> kg		

MEASUREMENTS IN CENTIMETERS



NOTES: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewalls, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

COLLISION DEFORMATION CLASSIFICATION**HIGHEST DELTA "V"**

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. <u>02</u>	5. <u>02</u>	6. <u>1 2</u>	7. <u>F</u>	8. <u>0</u>	9. <u>E</u>	10. <u>W</u>	11. <u>0 1</u>

Second Highest Delta "V"

12. _____	13. _____	14. _____	15. _____	16. _____	17. _____	18. _____	19. _____
-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------

CRUSH PROFILE IN CENTIMETERS

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN CENTIMETERS.)

HIGHEST DELTA "V"

20. <u>L</u>	21. <u>C₁</u>	<u>C₂</u>	<u>C₃</u>	<u>C₄</u>	<u>C₅</u>	<u>C₆</u>	22. <u>±D</u>
<u>182</u>	<u>005</u>	<u>003</u>	<u>006</u>	<u>006</u>	<u>004</u>	<u>003</u>	<u>+ 000</u>

Second Highest Delta "V"

23. <u>L</u>	24. <u>C₁</u>	<u>C₂</u>	<u>C₃</u>	<u>C₄</u>	<u>C₅</u>	<u>C₆</u>	25. <u>±D</u>
_____	_____	_____	_____	_____	_____	_____	<u>+ _____</u>

26. Undeformed End Width
(Coded when highest severity impact is an end plane impact.) 182
_____ Code to the nearest centimeter
(250) 250 centimeters or more
(998) No highest severity end plane impact
(999) Unknown

27. Direct Damage Width
(For highest severity impact) 140
_____ Code to the nearest centimeter
(250) 250 centimeters or more
(999) Unknown

28. Original Wheelbase 353
_____ Code to the nearest centimeter
(650) 650 centimeters or more
(999) Unknown
_____ inches X 2.54 = _____ centimeters

29. Original Average Track Width 999
_____ Code to the nearest centimeter
(185) 185 centimeters or more
(999) Unknown
_____ inches X 2.54 = _____ centimeters

		FUEL SYSTEM	
30. Are CDCs Documented but Not Coded on The Automated File?	<u>0</u>	35. Location of Fuel Tank-1 Filler Cap	<u>4</u>
(0) No		36. Location of Fuel Tank-2 Filler Cap	<u>2</u>
(1) Yes		(0) No fuel tank	
		(1) On back plane	
		(2) Aft of center of the rear wheels (rear axle) on left side plane	
		(3) Aft of center of the rear wheels (rear axle) on right side plane	
		(4) Forward of center of the rear wheels (rear axle) on left side plane	
		(5) Forward of center of the rear wheels (rear axle) on right side plane	
		(6) Over the center of the rear wheels (rear axle) on left side plane	
		(7) Over the center of the rear wheels (rear axle) on right side plane	
		(8) Other (specify): _____	
		(9) Unknown	
31. Researcher's Assessment of Vehicle Disposition	<u>1</u>	37. Type of Fuel Tank-1	<u>1</u>
(0) Not towed due to vehicle damage		38. Type of Fuel Tank-2	<u>1</u>
(1) Towed due to vehicle damage		(0) No fuel tank (electrical vehicle)	
(9) Unknown		(1) Metallic	
		(2) Non-metallic	
		(9) Unknown	
32. Is This A Multi-Stage Manufactured Vehicle And/Or A Certified Altered Vehicle?	<u>0</u>	39. Location of Fuel Tank-1	<u>4</u>
(0) No post manufacturer modifications		40. Location of Fuel Tank-2	<u>1</u>
(1) Yes - post manufacturer modifications (specify): _____		(0) No fuel tank	
_____		(1) Aft of center of the rear wheels (rear axle) centered	
_____		(2) Aft of center of the rear wheels (rear axle) left side	
(Include photograph of CERTIFICATION PLACARD in case report)		(3) Aft of center of the rear wheels (rear axle) right side	
(9) Unknown if vehicle is modified		(4) Forward of center of the rear wheels (rear axle) centered	
		(5) Forward of center of the rear wheels (rear axle) left side	
		(6) Forward of center of the rear wheels (rear axle) right side	
		(7) Over center of the rear wheels (rear axle)	
		(8) Other (specify): _____	
		(9) Unknown	
FIRE OCCURRENCE		41. Damage to Fuel Tank-1	<u>1</u>
33. Fire Occurrence	<u>0</u>	42. Damage to Fuel Tank-2	<u>1</u>
(0) No fire		(0) No fuel tank	
Yes, fire occurred		(1) No damage to fuel tank	
(1) Minor		(2) Deformed, no seam failure	
(2) Major		(3) Deformed, with a seam failure	
(9) Unknown		(4) Punctured	
		(5) Lacerated (ripped)	
		(6) Abraded (scraped)	
		(7) Filler neck separation from the fuel tank	
		(8) Other damage (specify): _____	
		(9) Unknown	
34. Origin of Fire	<u>0</u>		
(0) No fire			
(1) Vehicle exterior (front, side, back, top)			
(2) Exhaust system			
(3) Fuel tank (and other fuel retention system parts)			
(4) Engine compartment			
(5) Cargo/trunk compartment			
(6) Instrument panel			
(7) Passenger compartment area			
(8) Other location (specify): _____			
(9) Unknown			



INTERIOR VEHICLE FORM

1. ~~Primary Sampling Unit Number~~ _____2. Case Number - ~~Stratum~~ 95023. Vehicle Number 01

INTEGRITY

4. Passenger Compartment Integrity 00

(00) No integrity loss

Yes, Integrity Was Lost Through

(01) Windshield

(02) Door (side)

(03) Door/hatch (back door)

(04) Roof

(05) Roof glass

(06) Side window

(07) Rear window (backlight)

(08) Roof and roof glass

(09) Windshield and door (side)

(10) Windshield and roof

(11) Side and rear window (side window and backlight)

(12) Windshield and side window

(13) Door and side window

(98) Other combination of above (specify): _____

(99) Unknown

Door, Tailgate or Hatch Opening

5. LF 1 6. RF 1 7. LR 0 8. RR 0 9. TG/H 0

(0) No door/gate/hatch

(1) Door/gate/hatch remained closed and operational

(2) Door/gate/hatch came open during collision

(3) Door/gate/hatch jammed shut

(8) Other (specify): _____

(9) Unknown

Damage/Failure Associated with Door, Tailgate or Hatch
Opening in Collision. If IV05-IV09 \neq 2, Then code 010. LF 0 11. RF 0 12. LR 0 13. RR 0 14. TG/H 0

(0) No door/gate/hatch or door not opened

Door, Tailgate or Hatch Came Open During Collision

(1) Door operational (no damage)

(2) Latch/striker failure due to damage

(3) Hinge failure due to damage

(4) Door structure failure due to damage

(5) Door support (i.e., pillar, sill, roof side rail,
etc.) failure due to damage

(6) Latch/striker and hinge failure due to damage

(8) Other failure (specify): _____

(9) Unknown

GLAZING

Type of Window/Windshield Glazing

15. WS 1 16. LF 2 17. RF 2 18. LR 2 19. RR 220. BL 2 21. Roof 0 22. Other 0

(0) No glazing

(1) AS-1 - Laminated

(2) AS-2 - Tempered

(3) AS-3 - Tempered-tinted (original)

(4) AS-2 - Tempered-with after market tint

(5) AS-3 - Tempered-tinted (with additional after market tint)

(6) AS-14 - Glass/Plastic

(7) Glazing removed prior to accident

(8) Other (specify): _____

(9) Unknown

Window Precrash Glazing Status

23. WS 1 24. LF 2 25. RF 2 26. LR 2 27. RR 228. BL 1 29. Roof 0 30. Other 0

(0) No glazing

(1) Fixed

(2) Closed

(3) Partially opened

(4) Fully opened

(7) Glazing removed prior to accident

(9) Unknown

Glazing Damage from Impact Forces

31. WS 1 32. LF 1 33. RF 1 34. LR 1 35. RR 136. BL 1 37. Roof 0 38. Other 0

(0) No glazing

(1) No glazing damage from impact forces

(2) Glazing in place and cracked from impact forces

(3) Glazing in place and holed from impact forces

(4) Glazing out-of-place (cracked or not) and not holed from
impact forces

(5) Glazing out-of-place and holed from impact forces

(6) Glazing disintegrated from impact forces

(7) Glazing removed prior to accident

(9) Unknown if damaged

Glazing Damage from Occupant Contact

39. WS 2 40. LF 1 41. RF 1 42. LR 1 43. RR 144. BL 1 45. Roof 0 46. Other 0

(0) No glazing

(1) No occupant contact to glazing

(2) Glazing contacted by occupant but no glazing damage

(3) Glazing in place and cracked by occupant contact

(4) Glazing in place and holed by occupant contact

(5) Glazing out-of-place (cracked or not) by occupant

contact and not holed by occupant contact

(6) Glazing out-of-place by occupant contact and holed by
occupant contact

(7) Glazing removed prior to accident

(8) Glazing disintegrated by occupant contact

(9) Unknown if contacted by occupant

OCCUPANT AREA INTRUSION

Note: If no intrusions, leave variables IV47-IV86 blank.

INTRUDING COMPONENT*Interior Components*

- (01) Steering assembly
 (02) Instrument panel left
 (03) Instrument panel center
 (04) Instrument panel right
 (05) Toe pan
 (06) A (A1/A2)-pillar
 (07) B-pillar **NO INTRUSION**
 (08) C-pillar
 (09) D-pillar
 (10) Side panel - forward of the A1/A2-pillar
 (11) Door panel (side)
 (12) Side panel - rear of the B-pillar
 (13) Roof (or convertible top)
 (14) Roof side rail
 (15) Windshield
 (16) Windshield header
 (17) Window frame
 (18) Floor pan (includes sill)
 (19) Backlight header
 (20) Front seat back
 (21) Second seat back
 (22) Third seat back
 (23) Fourth seat back
 (24) Fifth seat back
 (25) Seat cushion
 (26) Back door/panel (e.g., tailgate)
 (27) Other interior component (specify): _____

Exterior Components

- (30) Hood
 (31) Outside surface of this vehicle (specify): _____
 (32) Other exterior object in the environment (specify): _____
 (33) Unknown exterior object
 (97) Catastrophic
 (98) Intrusion of unlisted component(s) (specify): _____
 (99) Unknown

LOCATION OF INTRUSION

Front Seat
 (11) Left
 (12) Middle
 (13) Right

Fourth Seat
 (41) Left
 (42) Middle
 (43) Right

Second Seat
 (21) Left
 (22) Middle
 (23) Right

(97) Catastrophic
 (98) Other enclosed area (specify) _____

(99) Unknown

Third Seat
 (31) Left
 (32) Middle
 (33) Right

MAGNITUDE OF INTRUSION

- (1) ≥ 3 centimeters but < 8 centimeters
 (2) ≥ 8 centimeters but < 15 centimeters
 (3) ≥ 15 centimeters but < 30 centimeters
 (4) ≥ 30 centimeters but < 46 centimeters
 (5) ≥ 46 centimeters but < 61 centimeters
 (6) ≥ 61 centimeters
 (7) Catastrophic
 (9) Unknown

DOMINANT CRUSH DIRECTION

- (1) Vertical
 (2) Longitudinal
 (3) Lateral
 (7) Catastrophic
 (9) Unknown

STEERING COLUMN

INSTRUMENT PANEL

87. Steering Column Type 2

- (1) Fixed column
 (2) Tilt column
 (3) Telescoping column
 (4) Tilt and telescoping column
 (8) Other column type (specify): _____

(9) Unknown

88. Tilt Steering Column Adjustment 3

- (0) No tilt steering column
 (1) Full up
 (2) Between full up and center
 (3) Center
 (4) Between center and full down
 (5) Full down
 (9) Unknown

89. Telescoping Steering Column Adjustment 0

- (0) No telescoping steering column
 (1) Full back
 (2) Between full back and midpoint
 (3) Midpoint
 (4) Between midpoint and full forward
 (5) Full forward
 (9) Unknown

90. Steering Rim/Spoke Deformation 0 0

- Code actual measured
 deformation to the nearest centimeter
 (00) No steering rim deformation
 (01-14) Actual measured value in centimeters
 (15) 15 centimeters or more
 (98) Observed deformation cannot be measured
 (99) Unknown

91. Location of Steering Rim/Spoke Deformation 0 0

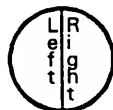
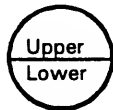
- (00) No steering rim deformation

Quarter Sections

- (01) Section A
 (02) Section B
 (03) Section C
 (04) Section D

*Half Sections*

- (05) Upper half of rim/spoke
 (06) Lower half of rim/spoke
 (07) Left half of rim/spoke
 (08) Right half of rim/spoke



- (09) Complete steering wheel collapse
 (10) Undetermined location
 (99) Unknown

92. Odometer Reading 0 2 0,000

_____ kilometers

Code to the nearest 1,000 kilometers

(000) No odometer

(001) Less than 1,500 kilometers

(500) 499,500 kilometers or more

(999) Unknown

12,298 miles X 1.6093 = 19,791 kilometers

Source: _____

93. Instrument Panel Damage from Occupant Contact? 1

- (0) No
 (1) Yes
 (9) Unknown

94. Type of Knee Bolster Covering 2

- (0) No knee bolster
 (1) Padded
 (2) Rigid plastic
 (8) Other (specify): _____
 (9) Unknown

95. Knee Bolsters Deformed from Occupant Contact? 1

- (0) No knee bolster
 (1) No deformation
 (2) Yes - deformation
 (9) Unknown

96. Did Glove Compartment Door Open During Collision(s)? 1

- (0) No glove compartment door
 (1) No - door did not open
 (2) Yes - door opened
 (9) Unknown

97. Adaptive (Assistive) Driving Equipment 0

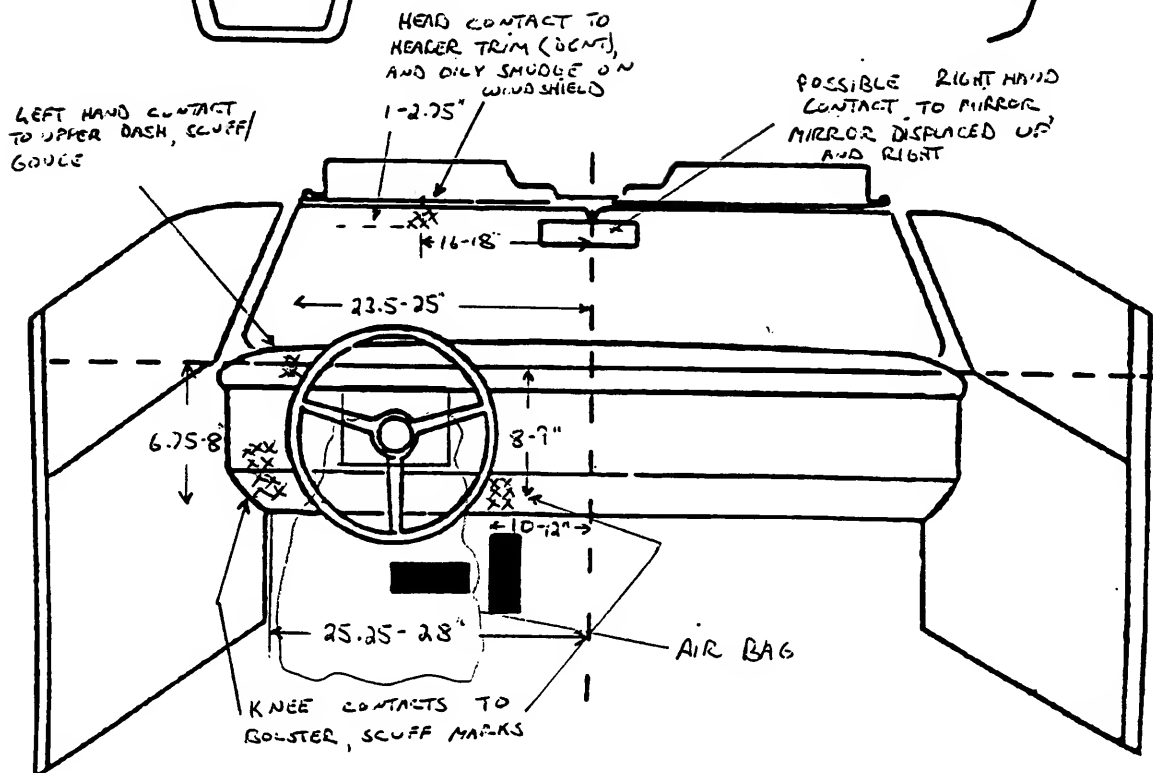
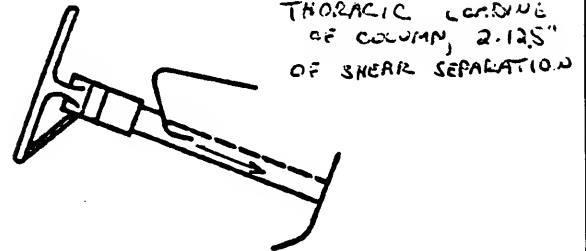
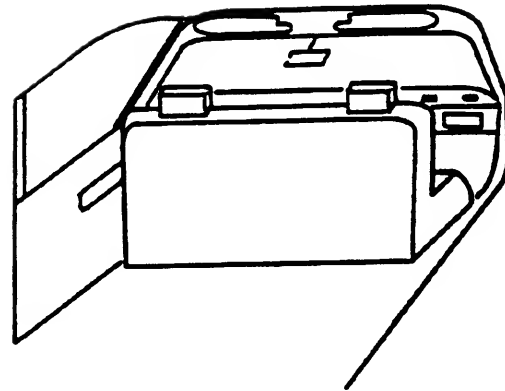
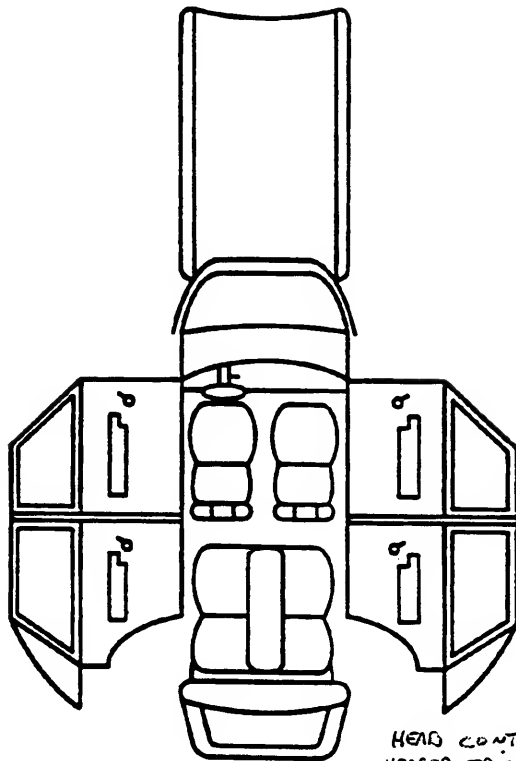
- (0) No adaptive driving equipment
 (1) Adaptive driving equipment installed (Check all that apply.)
☐ Hand controls for braking/acceleration
☐ Steering control devices (attached to OEM steering wheel)
☐ Steering knob attached to steering wheel
☐ Low effort power steering (unit or device)
☐ Replacement steering wheel (i.e., reduced diameter)
☐ Joy-stick steering controls
☐ Wheelchair tie-downs
☐ Modification to seat belts (specify): _____
☐ Additional or relocated switches (specify): _____
☐ Raised roof
☐ Wall-mounted head rest (used behind wheelchair)
☐ Other adaptive device (specify): _____

(9) Unknown

VEHICLE INTERIOR SKETCHES

Note area of ejection/entrapment

BEST AVAILABLE COPY



Sketch windshield contact(s) and the damaged area(s) on the instrument panel outline (e.g., radio, glove compartment, damage to instrument panel structure).

Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.

Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.

POINTS OF OCCUPANT CONTACT

Contact	Interior Component Contacted	Occupant No. If Known	Body Region If Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	170	1	CHEST	FABRIC TRANSFERS	1
B	015	1	HEAD	DENT/OIL SMUDGE	1
C	002	1	(R) HAND	DISPLACED	3
D	014	1	KNEES	SCUFF	1
E	006	1	CHEST	COLUMN COMPRESSION	1
F					
G					
H					
I					
J					
K					
L					
M					
N					

FRONT

- (001) Windshield
 (002) Mirror
 (003) Sunvisor
 (004) Steering wheel rim
 (005) Steering wheel hub/spoke
 (006) Steering wheel (combination of codes 004 and 005)
 (007) Steering column, transmission selector lever, other attachment
 (008) Cellular telephone or CB radio
 (009) Add on equipment (e.g., tape deck, air conditioner)
 (010) Left instrument panel and below
 (011) Center instrument panel and below
 (012) Right instrument panel and below
 (013) Glove compartment door
 (014) Knee bolster
 (015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
 (016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
 (017) Windshield reinforced by exterior object, (specify):
 (019) Other front object (specify):

LEFT SIDE

- (051) Left side interior surface, excluding hardware or armrests
 (052) Left side hardware or armrest
 (053) Left A (A1/A2)-pillar
 (054) Left B-pillar
 (055) Other left pillar (specify):
 (056) Left side window glass
 (057) Left side window frame
 (058) Left side window sill
 (059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
 (060) Other left side object (specify):

RIGHT SIDE

- (101) Right side interior surface, excluding hardware or armrests
 (102) Right side hardware or armrest
 (103) Right A (A1/A2)-pillar
 (104) Right B-pillar
 (105) Other right pillar (specify):
 (106) Right side window glass
 (107) Right side window frame
 (108) Right side window sill
 (109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
 (110) Other right side object (specify):

CODES FOR INTERIOR COMPONENTS

INTERIOR

- (151) Seat, back support
 (152) Belt restraint webbing/buckle
 (153) Belt restraint B-pillar or door frame attachment point
 (154) Other restraint system component (specify):
 (155) Head restraint system
 (160) Other occupants (specify):
 (161) Interior loose objects
 (162) Child safety seat (specify):
 (163) Other interior object (specify):

AIR BAG

- (170) Air bag-driver side
 (175) Air bag compartment cover-driver side
 (180) Air bag-passenger side
 (185) Air bag compartment cover-passenger side
 (190) Other air bag (specify)
 (195) Other air bag compartment cover (specify)

ROOF

- (201) Front header
 (202) Rear header
 (203) Roof left side rail
 (204) Roof right side rail
 (205) Roof or convertible top

FLOOR

- (251) Floor (including toe pan)
 (252) Floor or console mounted transmission lever, including console
 (253) Parking brake handle
 (254) Foot controls including parking brake

REAR

- (301) Backlight (rear window)
 (302) Backlight storage rack, door, etc.
 (303) Other rear object (specify):

ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT

- (401) Hand controls for braking/acceleration
 (402) Steering control devices (attached to OEM steering wheel)
 (403) Steering knob attached to steering wheel
 (405) Replacement steering wheel (i.e., reduced diameter)
 (406) Joy stick steering controls
 (407) Wheelchair tie-downs
 (408) Modification to seat belts, (specify):
 (409) Additional or relocated switches, (specify):
 (410) Raised roof
 (411) Wall mounted head rest (used behind wheel chair)
 (412) Other adaptive device (specify):

CONFIDENCE LEVEL OF CONTACT POINT

- (1) Certain
 (2) Probable
 (3) Possible
 (9) Unknown

MANUAL RESTRAINTS

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form. If a Child safety seat is present, encode the data on the back of this page. If the vehicle has automatic restraints available, encode the appropriate data on the back of the previous page.

		Left	Center	Right
FIRST	Availability	4	3	4
	Evidence of usage	00	-	-
	Used in this crash?	00	-	-
	Proper Use	0	-	-
	Failure Modes	0	-	-
	Anchorage Adjustment	1	-	-
SECOND	Availability	4	3	4
	Evidence of usage	-	-	-
	Used in this crash?	-	-	-
	Proper Use	-	-	-
	Failure Modes	-	-	-
	Anchorage Adjustment	1	-	1
OTHER	Availability			
	Evidence of usage			
	Used in this crash?			
	Proper Use			
	Failure Modes			
	Anchorage Adjustment			

Manual (Active) Belt System Availability

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available - type unknown

Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify): _____
- (9) Unknown

Manual (Active) Belt System Use

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperable (specify): _____

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used - type unknown
- (08) Other belt used (specify): _____
- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat - type unknown
- (18) Other belt used with child safety seat (specify): _____
- (99) Unknown if belt used

Proper Use of Manual (Active) Belts

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____
- (8) Other improper use of manual belt system (specify): _____
- (9) Unknown

Manual (Active) Belt Failure Modes During Accident

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): _____
- (6) Broken retractor
- (7) Combination of above (specify): _____
- (8) Other manual belt failure (specify): _____
- (9) Unknown

Shoulder Belt Upper Anchorage Adjustment

- (0) No shoulder belt
- (1) No upper anchorage adjustment for shoulder belt

Adjustable shoulder Belt Upper Anchorage

- (2) In full up position
- (3) In mid position
- (4) In full down position
- (5) Position unknown
- (9) Unknown if position has adjustable upper anchorage adjustment

AUTOMATIC RESTRAINTS

NOTES: Encode the data for each applicable front seat position. The attribute for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

AIR BAGS

		Left Front	Right Front	Other
F I R S T	Availability/Function	1	0	0
	Deployment	1	0	0
	Failure	1	0	0

Air Bag System Availability/Function

- (0) Not equipped/not available
(1) Air bag

Non-functional

- (2) Air bag disconnected (specify): _____
(3) Air bag not reinstalled
(9) Unknown

Are There Indications of Air Bag System Failure? (This Occupant Position)

- (0) Not equipped/not available
(1) No
(2) Yes (specify): _____
(9) Unknown

Frontal Air Bag System Deployment (This Occupant Position)

- (0) Not equipped/not available
(1) Deployed during accident (as a result of impact)
(2) Deployed inadvertently just prior to accident
(3) Deployed, accident sequence undetermined
(4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
(5) Unknown if deployed
(7) Nondeployed
(9) Unknown

Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position)

- (0) Not equipped with an "other" air bag
(1) Deployed during accident (as a result of impact)
(2) Deployed inadvertently just prior to accident
(3) Deployed, details unknown
(4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
(5) Unknown if deployed
(7) Nondeployed
(9) Unknown

AUTOMATIC BELTS

		Left	Right
F I R S T	Availability/Function	0	0
	Use	0	0
	Type	0	0
	Proper Use	0	0
	Failure Modes	0	0

Automatic (Passive) Belt System Availability/Function

- (0) Not equipped/not available
(1) 2 point automatic belts
(2) 3 point automatic belts
(3) Automatic belts - type unknown

Non-functional

- (4) Automatic belts destroyed or rendered inoperative
(9) Unknown

Automatic (Passive) Belt System Use

- (0) Not equipped/not available/destroyed or rendered inoperative
(1) Automatic belt in use
(2) Automatic belt not in use (manually disconnected, motorized track inoperative)
(3) Automatic belt use unknown
(9) Unknown

Automatic (Passive) Belt System Type

- (0) Not equipped/not available
(1) Non-motorized system
(2) Motorized system
(9) Unknown

Proper Use of Automatic (Passive) Belt System

- (0) Not equipped/not available/not used
(1) Automatic belt used properly
(2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly

- (3) Automatic shoulder belt worn under arm
(4) Automatic shoulder belt worn behind back
(5) Automatic belt worn around more than one person
(6) Lap portion of automatic belt worn on abdomen
(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): _____
(8) Other improper use of automatic belt system (specify): _____
(9) Unknown

Automatic (Passive) Belt Failure Modes During Accident

- (0) Not equipped/not available/not in use
(1) No automatic belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify): _____
(6) Broken retractor
(7) Combination of above (specify): _____
(8) Other automatic belt failure (specify): _____
(9) Unknown

FIRST SEAT FRONTAL AIR BAGS

NOTES: Encode the applicable data *for the driver and first seat passenger* in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

	Driver	Passenger
Type of air bag?	1	0
Flaps open at tear points?	2	2
Flaps damaged?	2	2
Air bag damaged?	01	00
Source of air bag damage	01	00
Air bag tethered?	2	0
Air bag have vent ports?	2	0
Other occupant contact air bag?	1	0
Occupant wearing eyewear?	2	0

Type of Air Bag

- (0) Not equipped/not available
- (1) Original manufacturer installed system
- (2) Retrofitted air bag
- (3) Replacement air bag
- (8) Unknown type of air bag
- (9) Unknown

Did Air Bag Module Cover Flap(s) Open At Designated Tear Points?

- (0) Not equipped/not available
- (1) No
- (2) Yes
- (3) Deployed, unknown if flap(s) opened at designated tear points
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

Were Air Bag Module Cover Flap(s) Damaged?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify):
OFFER SEPARATED
- (3) Deployed, unknown if air bag module cover flap(s) damaged
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

Was There Damage To The Air Bag?

- (00) Not equipped/not available
- (01) Not damaged

Yes - Air Bag Damage

- (02) Ruptured
- (03) Cut
- (04) Torn
- (05) Holed
- (06) Burned
- (07) Abraded
- (88) Other damage (specify):

Source of Air Bag Damage

- (00) Not equipped/not available
- (01) Not damaged
- (02) Object worn by occupant, (specify):
- (03) Object carried by occupant, (specify):
- (04) Adaptive/assistive controls, (specify):
- (05) Fire in vehicle
- (06) Thermal burns
- (07) Rescue or emergency efforts
- (88) Other damage source (specify):
- (95) Damaged, unknown source
- (96) Deployed, unknown if damaged
- (97) Not deployed
- (98) Unknown if deployed
- (99) Unknown

Was The Air Bag Tethered?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify number of tether straps):
4
- (3) Deployed, unknown if tethered
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

Did The Air Bag Have Vent Ports?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify number of vent ports):
2
- (3) Deployed, unknown if vent ports present
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

Was the Air Bag in this Occupant's Position Contacted by Another Occupant?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify):
- (3) Deployed, unknown if other occupant contact to air bag
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

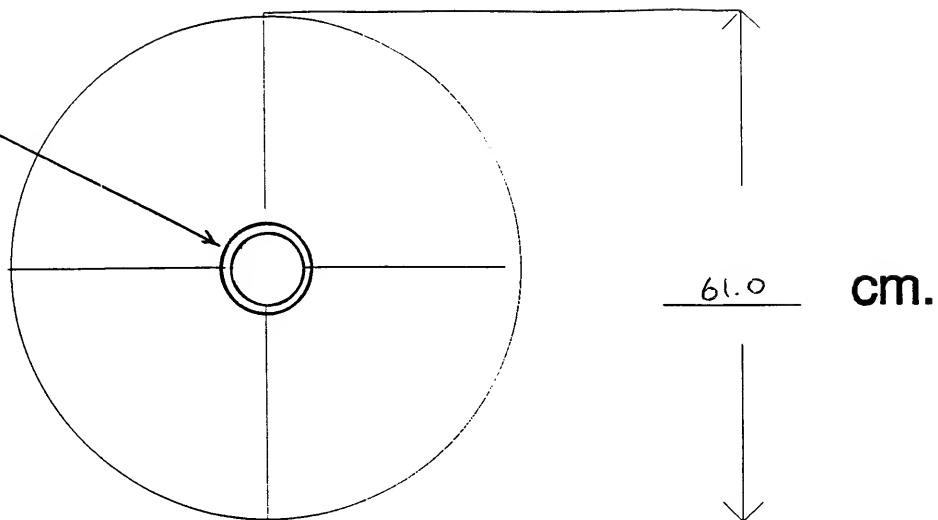
Was This Occupant Wearing Eye-wear?

- (0) Not equipped/not available
- (1) No
- (2) Eyeglasses/sunglasses
- (3) Contact lenses
- (4) Deployed, unknown if eyewear worn
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

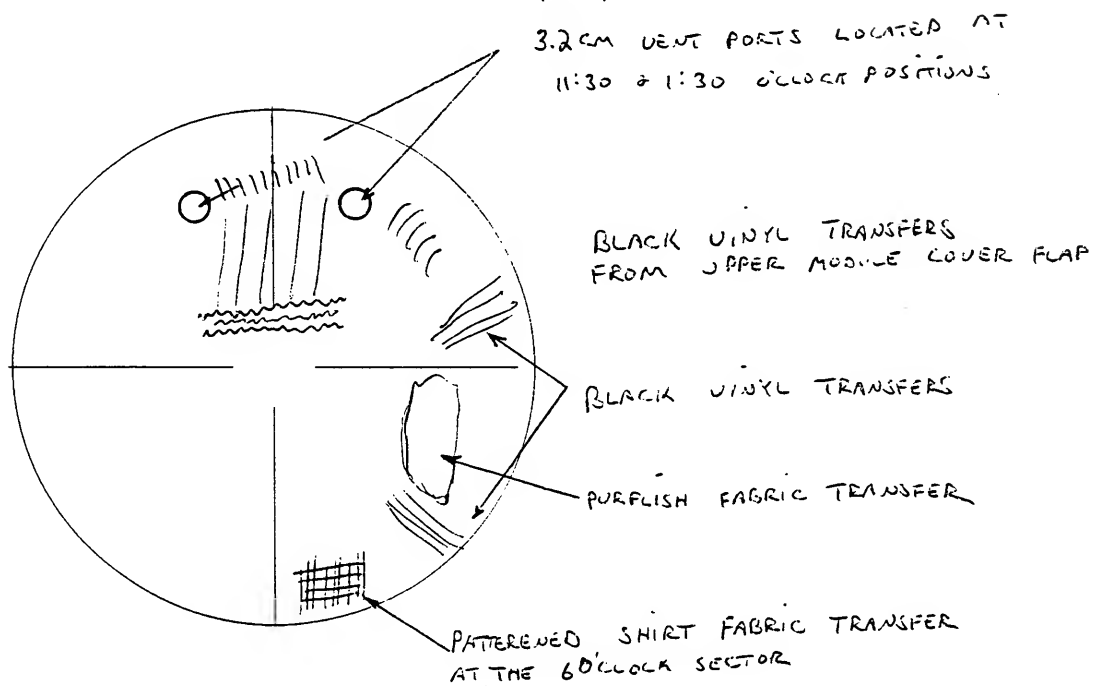
DRIVER AIR BAG DAMAGE AND CONTACT SKETCHES

1. SKETCH DAMAGE AND CONTACT EVIDENCE ON DRIVER AIR BAG (Front)

2 ROWS OF STITCHING
FOR TETHER
REINFORCEMENT
16.5 cm (6.5")
DIAMETER



2. SKETCH DAMAGE AND CONTACT EVIDENCE ON DRIVER AIR BAG (Back)

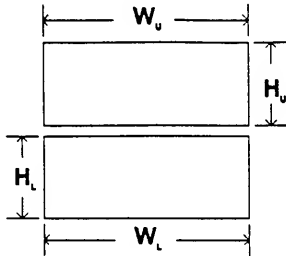


DRIVER AIR BAG SKETCHES (Cont'd)

3. DRIVER AIR BAG MODULE COVER FLAP SIZE (DOUBLE)

a. Upper Flap

b. Lower Flap

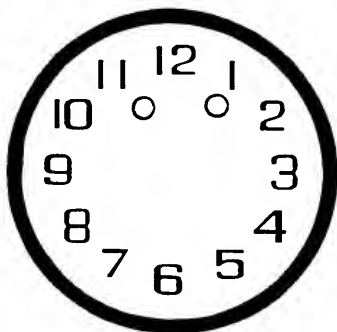
* width (W_U) 20.3 cmwidth (W_L) 20.3 cmheight (H_U) 12.4 cmheight (H_L) 3.8 cm

* NOTE: UPPER MODULE COVER FLAP SEPARATED AS A RESULT OF DEPLOYMENT (MEASUREMENTS PROVIDED ARE TYPICAL)

4. SKETCH OF OTHER TYPE OF AIR BAG MODULE FLAP AND SIZE

5. SKETCH OF OTHER TYPE OF AIR BAG VENT PORTS

6. SKETCH LOCATION OF CIRCULAR AIR BAG VENT PORTS



VENT PORTS LOCATED AT 11:30 AND 1:30 O'CLOCK POSITIONS

HEAD RESTRAINTS/SEAT EVALUATION

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
FIRST	Head Restraint Type/Damage	3	0	3
	Seat Type	06	06	06
	Seat Performance	1	1	1
	Seat Orientation	1	1	1
	Seat Track Position	6	6	6
	Seat Back Incline Pre/Post Impact	23	23	23
SECOND	Head Restraint Type/Damage	0	0	0
	Seat Type	09	09	09
	Seat Performance	1	1	1
	Seat Orientation	1	1	1
	Seat Track Position	1	1	1
	Seat Back Incline Pre/Post Impact	14	14	14
THIRD	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			
	Seat Track Position			
	Seat Back Incline Pre/Post Impact			
OTHER	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			
	Seat Track Position			
	Seat Back Incline Pre/Post Impact			

**DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE
(I.E., UNUSUAL OCCUPANT CONTACT PATTERN)**

HEAD RESTRAINTS/SEAT EVALUATION**Head Restraint Type/Damage by Occupant at This Occupant Position**

- (0) No head restraints
- (1) Integral — no damage
- (2) Integral — damaged during accident
- (3) Adjustable — no damage
- (4) Adjustable — damaged during accident
- (5) Add-on — no damage
- (6) Add-on — damaged during accident
- (8) Other
Specify: _____
- (9) Unknown

Seat Type (this Occupant Position)

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify):
BENCH w/ FOLDING CUSHIONS
- (10) Box mounted seat (i.e., van type)
- (99) Unknown

Seat Performance (this Occupant Position)

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed (specify): _____
- (4) Seat tracks/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): _____
- (7) Combination of above (specify): _____
- (8) Other (specify): _____
- (9) Unknown

Seat Orientation (this Occupant Position)

- (0) Occupant not seated or no seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify): _____
- (9) Unknown

Seat Track Adjusted Position Prior To Impact

- (0) Occupant not seated or no seat
- (1) Non-adjustable seat track
- Adjustable Seat Track*
- (2) Seat at forward most track position
- (3) Seat between forward most and middle track positions
- (4) Seat at middle track position
- (5) Seat between middle and rear most track positions
- (6) Seat at rear most track position
- (9) Unknown

Seat Back Incline Prior and Post Impact

- (00) Occupant not seated or no seat
- (01) Not adjustable

Upright prior to impact

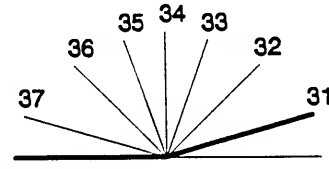
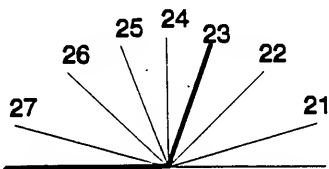
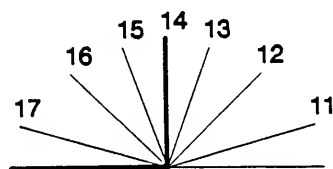
- (11) Moved to completely rearward position
- (12) Moved to rearward midrange position
- (13) Moved to slightly rearward position
- (14) Retained pre-impact position
- (15) Moved to slightly forward position
- (16) Moved to forward midrange position
- (17) Moved to completely forward position

Slightly reclined prior to impact

- (21) Moved to completely rearward position
- (22) Moved to rearward midrange position
- (23) Retained pre-impact position
- (24) Moved to upright position
- (25) Moved to slightly forward position
- (26) Moved to forward midrange position
- (27) Moved to completely forward position

Completely reclined prior to impact

- (31) Retained pre-impact position
- (32) Moved to rearward midrange position
- (33) Moved to slightly rearward position
- (34) Moved to upright position
- (35) Moved to slightly forward position
- (36) Moved to forward midrange position
- (37) Moved to completely forward position
- (99) Unknown

Coding diagrams for *Seat Back Incline Position Prior and Post Impact*

**DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE
(I.E., UNUSUAL OCCUPANT CONTACT PATTERN)**

CHILD SAFETY SEAT FIELD ASSESSMENT

When a child safety seat is present enter the occupant's number in the first row and complete the column below the occupant's number using the codes listed below. Complete a column for each child safety seat present.

Occupant Number						
1. Type of Child Safety Seat						
2. Child Safety Seat Orientation						
3. Child Safety Seat Harness Usage						
4. Child Safety Seat Shield Usage						
5. Child Safety Seat Tether Usage						
6. Child Safety Seat Make/Model	Specify Below for Each Child Safety Seat					

1. Type of Child Safety Seat

- (0) No child safety seat
- (1) Infant seat
- (2) Toddler seat
- (3) Convertible seat
- (4) Booster seat
- (7) Other type child safety seat (specify):

- (8) Unknown child safety seat type
- (9) Unknown if child safety seat used

2. Child Safety Seat Orientation

- (00) No child safety seat
- Designed for Rear Facing for This Age/Weight
- (01) Rear facing
- (02) Forward facing
- (08) Other orientation (specify):

- (09) Unknown orientation

- Designed for Forward Facing for This Age/Weight
- (11) Rear facing
- (12) Forward facing
- (18) Other orientation (specify):

- (19) Unknown orientation

- Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight
- (21) Rear facing
- (22) Forward facing
- (28) Other orientation (specify):

- (29) Unknown orientation

- (99) Unknown if child safety seat used

3. Child Safety Seat Harness Usage

4. Child Safety Seat Shield Usage

- 5. Child Safety Seat Tether Usage
- Note: Options Below Are Used for Variables 3-5.
- (00) No child safety seat

Not Designed with Harness/Shield/Tether

- (01) After market harness/shield/tether added, not used
- (02) After market harness/shield/tether used
- (03) Child safety seat used, but no after market harness/shield/tether added
- (09) Unknown if harness/shield/tether added or used

Designed With Harness/Shield/Tether

- (11) Harness/shield/tether not used
- (12) Harness/shield/tether used
- (19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

- (21) Harness/shield/tether not used
- (22) Harness/shield/tether used
- (29) Unknown if harness/shield/tether used

- (99) Unknown if child safety seat used

6. Child Safety Seat Make/Model

(Specify make/model and occupant number)

EJECTION/ENTRAPMENT DATA

Complete the following if the researcher has any indication that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occupant Assessment Form.

EJECTION No [☒] Yes [☐]

Describe indications of ejection and body parts involved in partial ejection(s):

Occupant Number						
Ejection						
(Note on Vehicle Interior Sketch) Ejection Area						
Ejection Medium						
Medium Status						

Ejection

- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, Unknown degree
- (9) Unknown

Ejection Area

- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear

(7) Roof

- (8) Other area (e.g., back of pickup, etc.) (specify):

- (9) Unknown

Ejection Medium

- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify):

(5) Integral structure

- (8) Other medium (specify):

- (9) Unknown

Medium Status (Immediately Prior to Impact)

- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

ENTRAPMENT No [☒] Yes [☐]

Describe entrapment mechanism: _____

Component(s): _____

(Note in vehicle interior diagram)

ATTACHMENT G

NASS Occupant Forms



OCCUPANT ASSESSMENT FORM

1. ~~Primary Sampling Unit Number~~

2. Case Number - ~~Stratum~~

3. Vehicle Number

4. Occupant Number

9 5 0 2

0 1

0 1

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

5 6

6. Occupant's Sex

(1) Male

(2) Female-not reported pregnant

(3) Female-pregnant-1st trimester(1st-3rd month)

(4) Female-pregnant-2nd trimester(4th-6th month)

(5) Female-pregnant-3rd trimester(7th-9th month)

(6) Female-pregnant-term unknown

(9) Unknown

1

7. Occupant's Height

Code actual height to the nearest
centimeter.

(999) Unknown
70-72"

71 inches X 2.54 = 180 centimeters

1 8 0

8. Occupant's Weight

Code actual weight to the nearest
kilogram.

(999) Unknown

210 pounds X .4536 = 095 kilograms

0 9 5

9. Occupant's Role

(1) Driver

(2) Passenger

(9) Unknown

1

OCCUPANT'S SEATING

10. Occupant's Seat Position

Front Seat

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify):

(15) On or in the lap of another occupant

1 1

Second Seat

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify):

(25) On or in the lap of another occupant

Third Seat

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify):

(35) On or in the lap of another occupant

Fourth Seat

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify):

(45) On or in the lap of another occupant

(97) In or on unenclosed area

(98) Other seat (specify):

(99) Unknown

11. Occupant's Posture

(0) Normal posture

0

Abnormal posture

(1) Kneeling or standing on seat

(2) Lying on or across seat

(3) Kneeling, standing or sitting in front of seat

(4) Sitting sideways or turned to talk with another
occupant or to look out a rear window

(5) Sitting on a console

(6) Lying back in a reclined seat position

(7) Bracing with feet or hands on a surface in front
of seat

(8) Other abnormal posture (specify):

(9) Unknown

EJECTION/ENTRAPMENT**12. Ejection**0

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

13. Ejection Area0

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)
(specify): _____
- (9) Unknown

14. Ejection Medium0

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): _____
- (5) Integral structure
- (8) Other medium (specify): _____
- (9) Unknown

15. Medium Status (Immediately Prior To Impact) 0

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

16. Entrapment0

- (0) Not entrapped/exit not inhibited
- (1) Entrapped/pinned - mechanically restrained
- (2) Could not exit vehicle due to jammed doors, fire, etc.
(specify): _____
- (9) Unknown

17. Occupant Mobility1

- (0) Occupant fatal before removed from vehicle
- (1) Removed from vehicle while unconscious or disoriented
- (2) Removed from vehicle due to injuries
- (3) Exited vehicle with some assistance
- (4) Exited vehicle under own power
- (5) Occupant fully ejected
- (9) Unknown

BELT SYSTEM FUNCTION

18. Manual (Active) Belt System Availability 4

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify): _____

(9) Unknown

19. Manual (Active) Belt System Use 00

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify): _____

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used—type unknown
- (08) Other belt used (specify): _____

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat—type unknown
- (18) Other belt used with child safety seat (specify): _____
- (99) Unknown if belt used

20. Proper Use of Manual (Active) Belts 0

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____

(8) Other improper use of manual belt system (specify): _____

(9) Unknown

21. Manual (Active) Belt Failure Modes During Accident 0

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): _____

- (6) Broken retractor
- (7) Combination of above (specify): _____

(8) Other manual belt failure (specify): _____

(9) Unknown

22. Shoulder Belt Upper Anchorage Adjustment 1

- (0) No shoulder belt
- (1) No upper anchorage adjustment for shoulder belt

Adjustable shoulder Belt Upper Anchorage

- (2) In full up position
- (3) In mid position
- (4) In full down position
- (5) Position unknown
- (9) Unknown if position has adjustable upper anchorage adjustment

23. Automatic (Passive) Belt System Availability/Function 0

- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts - type unknown

Non-functional

- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

24. Automatic (Passive) Belt System Use 0

- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify): _____
- (3) Automatic belt use unknown
- (9) Unknown

25. Automatic (Passive) Belt System Type 0

- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

26. Proper Use of Automatic (Passive) Belt System 0

- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly

- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): _____

(8) Other improper use of automatic belt system (specify): _____

(9) Unknown

27. Automatic (Passive) Belt Failure Modes During Accident 0

- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): _____

(6) Broken retractor

(7) Combination of above (specify): _____

(8) Other automatic belt failure (specify): _____

(9) Unknown

POLICE REPORTED RESTRAINT USE

28. Police Reported Belt Use 0

- (0) None used
 (1) Police did not indicate belt use
 (2) Shoulder belt
 (3) Lap belt
 (4) Lap and shoulder belt
 (5) Belt used, type not specified
 (6) Child safety seat
 (7) Automatic belt
 (8) Other type belt, (specify):

(9) Police indicated "unknown"

29. Police Reported Air Bag Availability/Function 1

- (0) No air bag available
 (1) Police did not indicate air bag availability/function
 (2) Deployed
 (3) Not deployed
 (4) Unknown if deployed
 (9) Police indicated "unknown"

Check the Primary Source Used In Determining Belt Use.

- [] Not equipped/not available/destroyed or rendered inoperative
 [✓] Vehicle inspection
 [] Official injury data
 [] Driver/occupant interview
 [] Other (specify):

[] Unknown if belt used

AIR BAG SYSTEM FUNCTION

30. Frontal Air Bag System Availability/Function (This Occupant Position) 1

- (0) Not equipped/not available
 (1) Air bag

Non-functional

(2) Air bag disconnected (specify):

- (3) Air bag not reinstalled
 (9) Unknown

31. Frontal Air Bag System Deployment (This Occupant Position) 1

- (0) Not equipped/not available
 (1) Deployed during accident (as a result of impact)
 (2) Deployed inadvertently just prior to accident
 (3) Deployed, details unknown
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
 (5) Unknown if deployed
 (7) Nondeployed
 (9) Unknown

32. Other Than First Seat Frontal Air Bag Availability/Function (This Occupant Position) 0

- (0) Not equipped/not available
 (1) Air bag

Non-functional

(2) Air bag disconnected (specify):

- (3) Air bag not reinstalled
 (9) Unknown

Specify type of "other" air bag present:

33. Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position) 0

- (0) Not equipped with an "other" air bag
 (1) Deployed during accident (as a result of impact)
 (2) Deployed inadvertently just prior to accident
 (3) Deployed, details unknown
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
 (5) Unknown if deployed
 (7) Nondeployed
 (9) Unknown

34. Are There Indications of Air Bag System Failure? (This Occupant Position) 1

- (0) Not equipped/not available
 (1) No
 (2) Yes (specify):

(9) Unknown

FIRST SEAT FRONTAL AIR BAG SYSTEM EVALUATION

35. Had Vehicle Been in Previous Accident(s)? 1

- (0) Not equipped/not available
(1) No previous accidents

Yes

- (2) Previous accident(s) without deployment(s)
(3) One previous accident with deployment
(4) More than one previous accident with at least one deployment
(8) Previous accidents, unknown deployment status
(9) Unknown

36. Type of Air Bag 1

- (0) Not equipped/not available
(1) Original manufacturer installed system
(2) Retrofitted air bag
(3) Replacement air bag
(8) Unknown type of air bag
(9) Unknown

37. Had Any Prior Maintenance/Service Been Performed On This Air Bag System? 1

- (0) Not equipped/not available
(1) No prior maintenance
(2) Yes, prior maintenance (specify):

(9) Unknown

38. Air Bag Deployment Accident Event Sequence Number 02

- (00) Not equipped/not available

Code the accident event sequence number that initiated the air bag deployment
(96) Deployed, unknown event
(97) Not deployed
(98) Unknown if deployed
(99) Unknown

39. CDC For Air Bag Deployment Impact 1

- (0) Not equipped/not available
(1) Highest delta V
(2) Second highest delta V
(3) Other non-coded delta V (specify):

(6) Deployed, unknown event
(7) Not deployed
(8) Unknown if deployed
(9) Unknown

40. Longitudinal Component of

Delta V For Air Bag

Deployment Impact

- (_ 000) Not equipped/not available
Code the value of the delta V for the impact that initiated the air bag deployment
(_ 996) Deployment, unknown longitudinal Delta V
(_ 997) Not deployed
(_ 998) Unknown if deployed
(_ 999) Unknown

41. Did Air Bag Module Cover Flap(s) Open At Designated Tear Points? 2

- (0) Not equipped/not available
(1) No
(2) Yes
(3) Deployed, unknown if flap(s) opened at designated tear points
(7) Not deployed
(8) Unknown if deployed
(9) Unknown

42. Were Air Bag Module Cover Flap(s) Damaged? 2

- (0) Not equipped/not available
(1) No
(2) Yes (specify):
(3) Deployed, unknown if air bag module cover flap(s) damaged
(7) Not deployed
(8) Unknown if deployed
(9) Unknown

43. Was There Damage To The Air Bag? 01

- (00) Not equipped/not available
(01) Not damaged

Yes - Air Bag Damage

- (02) Ruptured
(03) Cut
(04) Torn
(05) Holed
(06) Burned
(07) Abraded
(88) Other damage (specify):

(95) Damaged, details unknown
(96) Deployed, unknown if damaged
(97) Not deployed
(98) Unknown if deployed
(99) Unknown

**FIRST SEAT FRONTAL AIR BAG SYSTEM
EVALUATION** *continued*

44. Source of Air Bag Damage 01
 (00) Not equipped/not available
 (01) Not damaged
 (02) Object worn by occupant, (specify):
 (03) Object carried by occupant, (specify):
 (04) Adaptive/assistive controls, (specify):
 (05) Fire in vehicle
 (06) Thermal burns
 (07) Rescue or emergency efforts
 (88) Other damage source (specify):
 (95) Damaged, unknown source
 (96) Deployed, unknown if damaged
 (97) Not deployed
 (98) Unknown if deployed
 (99) Unknown
45. Was The Air Bag Tethered? 2
 (0) Not equipped/not available
 (1) No
 (2) Yes (specify number of tether straps):
4
 (3) Deployed, unknown if tethered
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown
46. Did The Air Bag Have Vent Ports? 2
 (0) Not equipped/not available
 (1) No
 (2) Yes (specify number of vent ports):
2
 (3) Deployed, unknown if vent ports present
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown
47. Was the Air Bag in this Occupant's Position Contacted by Another Occupant? 1
 (0) Not equipped/not available
 (1) No
 (2) Yes (specify):
 (3) Deployed, unknown if other occupant contact to air bag
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown
48. Was This Occupant Wearing Eye-wear? 2
 (0) Not equipped/not available
 (1) No
 (2) Eyeglasses/sunglasses
 (3) Contact lenses
 (4) Deployed, unknown if eyewear worn
 (7) Not deployed
 (8) Unknown if deployed
 (9) Unknown

HEAD RESTRAINT AND SEAT EVALUATION

49. Head Restraint Type/Damage by Occupant at This Occupant Position 3
 (0) No head restraints
 (1) Integral—no damage
 (2) Integral—damaged during accident
 (3) Adjustable—no damage
 (4) Adjustable—damaged during accident
 (5) Add-on—no damage
 (6) Add-on—damaged during accident
 (8) Other (specify):
 (9) Unknown
50. Seat Type (this Occupant Position) 06
 (00) Occupant not seated or no seat
 (01) Bucket
 (02) Bucket with folding back
 (03) Bench
 (04) Bench with separate back cushions
 (05) Bench with folding back(s)
 (06) Split bench with separate back cushions
 (07) Split bench with folding back(s)
 (08) Pedestal (i.e., column supported)
 (09) Box mounted seat (i.e., van type)
 (10) Other seat type (specify):
 (99) Unknown
51. Seat Orientation (this Occupant Position) 1
 (0) Occupant not seated or no seat
 (1) Forward facing seat
 (2) Rear facing seat
 (3) Side facing seat (inward)
 (4) Side facing seat (outward)
 (8) Other (specify):
 (9) Unknown
52. Seat Track Adjusted Position Prior To Impact 6
 (0) Occupant not seated or no seat
 (1) Non-adjustable seat track
- Adjustable Seat Track*
 (2) Seat at forward most track position
 (3) Seat between forward most and middle track positions
 (4) Seat at middle track position
 (5) Seat between middle and rear most track positions
 (6) Seat at rear most track position
 (9) Unknown

HEAD RESTRAINT AND SEAT EVALUATION *continued*

53. Seat Back Incline Prior and Post Impact 2 3
 (00) Occupant not seated or no seat
 (01) Not adjustable

Upright prior to impact

- (11) Moved to completely rearward position
 (12) Moved to rearward midrange position
 (13) Moved to slightly rearward position
 (14) Retained pre-impact position
 (15) Moved to slightly forward position
 (16) Moved to forward midrange position
 (17) Moved to completely forward position

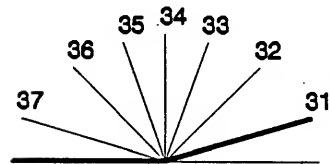
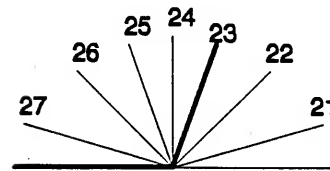
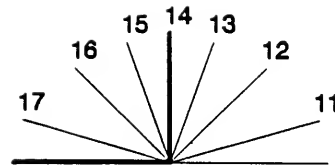
Slightly reclined prior to impact

- (21) Moved to completely rearward position
 (22) Moved to rearward midrange position
 (23) Retained pre-impact position
 (24) Moved to upright position
 (25) Moved to slightly forward position
 (26) Moved to forward midrange position
 (27) Moved to completely forward position

Completely reclined prior to impact

- (31) Retained pre-impact position
 (32) Moved to rearward midrange position
 (33) Moved to slightly rearward position
 (34) Moved to upright position
 (35) Moved to slightly forward position
 (36) Moved to forward midrange position
 (37) Moved to completely forward position

(99) Unknown



54. Seat Performance (this Occupant Position) 1
 (0) Occupant not seated or no seat
 (1) No seat performance failure(s)
 (2) Seat adjusters failed
 (3) Seat back folding locks or "seat back" failed (specify): _____
 (4) Seat track/anchors failed
 (5) Deformed by impact of occupant
 (6) Deformed by passenger compartment intrusion, (specify): _____
 (7) Combination of above (specify): _____
 (8) Other (specify): _____
 (9) Unknown

CHILD SAFETY SEAT

55. Child Safety Seat Make/Model 0 0 0
 (000) No child safety seat
 Applicable codes are found in your NASS CDS
 Data Collection, Coding and Editing
 (950) Built-in child safety seat
 (997) Other make/model (specify):

(998) Unknown make/model
 (999) Unknown if child safety seat used

56. Type of Child Safety Seat 0
 (0) No child safety seat
 (1) Infant seat
 (2) Toddler seat
 (3) Convertible seat
 (4) Booster seat - with shield
 (5) Booster seat - without shield
 (7) Other type child safety seat (specify):
 (8) Unknown child safety seat type
 (9) Unknown if child safety seat used

57. Child Safety Seat Orientation 0 0
 (00) No child safety seat

Designed for Rear Facing for This Age/Weight

(01) Rear facing
 (02) Forward facing
 (08) Other orientation (specify):

(09) Unknown orientation

Designed For Forward Facing for This Age/Weight

(11) Rear facing
 (12) Forward facing
 (18) Other orientation (specify):

(19) Unknown orientation

Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight

(21) Rear facing
 (22) Forward facing
 (28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

58. Child Safety Seat Harness Usage 0 0

59. Child Safety Seat Shield Usage 0 0

60. Child Safety Seat Tether Usage 0 0

Note: Options below applicable to
 Variables OA58-OA60.

(00) No child safety seat

Not Designed With Harness/Shield/Tether

(01) After market harness/shield/tether
 added, not used
 (02) After market harness/shield/tether used
 (03) Child safety seat used, but no after market
 harness/shield/tether added
 (09) Unknown if harness/shield/tether
 added or used

Designed With Harness/Shield/Tether

(11) Harness/shield/tether not used
 (12) Harness/shield/tether used
 (19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

(21) Harness/shield/tether not used
 (22) Harness/shield/tether used
 (29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

INJURY CONSEQUENCES61. Injury Severity (Police Rating) 4

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

62. Treatment - Mortality 1

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):

Nonfatal

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (7) Treatment - other (specify):

- (8) Transported to a medical facility-unknown if treated
- (9) Unknown

63. Type Of Medical Facility (for Initial Treatment) 2

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):

- (9) Unknown

64. Hospital Stay 00

- (00) Not Hospitalized
- _____ Code the number of days (up through 60) that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

65. Working Days Lost 62

- _____ Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

STOP WORK HERE**VARIABLES 66-74****TO BE CODED BY THE ZONE CENTER**

TO BE CODED BY THE ZONE CENTER**INJURY CONSEQUENCES**66. Time to Death 01

Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)

- (00) Not fatal
(96) Fatal - ruled disease
(99) Unknown

67. 1st Medically Reported Cause of Death 0768. 2nd Medically Reported Cause of Death 0069. 3rd Medically Reported Cause of Death 00

Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death

- (00) Not fatal or no additional causes
(96) Mode of death given but specific injuries are not linked to cause of death. (specify):

(97) Other result (includes fatal ruled disease) (specify):

(99) Unknown

70. Number of Recorded Injuries for This Occupant 31

Code the actual number of injuries recorded for this occupant.

- (00) No recorded injuries
(97) Injured, details unknown
(99) Unknown if injured

TRAUMA DATA71. Glasgow Coma Scale (GCS) Score 97

(at Medical Facility)

- (00) Not injured
(01) Injured - not treated at medical facility
(02) No GCS Score at medical facility
(03-15) Code the actual value of the initial GCS Score recorded at medical facility.
(97) Injured, details unknown
(99) Unknown if injured

72. Was the Occupant Given Blood? 9

(1) No - blood not given

(2) Yes - blood given

(specify units):

(9) Unknown if blood given

73. Arterial Blood Gases (ABG) - HCO₃ 01

(00) Not injured

(01) Injured, ABGs not measured or reported

(02-50) Code the actual value of the HCO₃

(96) ABGs reported, HCO₃ unknown

(97) Injured, details unknown

(99) Unknown if injured

BELT USE DETERMINATION74. Primary Source of Belt Use Determination 1

(0) Not equipped/not available/destroyed or rendered inoperative

(1) Vehicle inspection

(2) Official injury data

(3) Driver/occupant interview

(8) Other (specify):

(9) Unknown if belt used



U.S. Department of Transportation
National Highway Traffic Safety
Administration

OCCUPANT INJURY FORM

Form Approved
O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

3. Vehicle Number

2. Case Number - Stratum

4. Occupant Number

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

	Source of Injury Data	A.I.S. - 90					Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number	
		Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity					Aspect
1st	5. <u>1</u>	6. <u>5</u>	7. <u>4</u>	8. <u>20</u>	9. <u>10</u>	10. <u>2</u>	11. <u>8</u>	12. <u>170</u>	13. <u>1</u>	14. <u>1</u>	15. <u>00</u>
2nd	16. <u>1</u>	17. <u>5</u>	18. <u>4</u>	19. <u>20</u>	20. <u>22</u>	21. <u>2</u>	22. <u>8</u>	23. <u>170</u>	24. <u>1</u>	25. <u>1</u>	26. <u>00</u>
3rd	27. <u>1</u>	28. <u>4</u>	29. <u>5</u>	30. <u>02</u>	31. <u>42</u>	32. <u>5</u>	33. <u>3</u>	34. <u>175</u>	35. <u>1</u>	36. <u>1</u>	37. <u>00</u>
4th	38. <u>1</u>	39. <u>4</u>	40. <u>5</u>	41. <u>08</u>	42. <u>04</u>	43. <u>2</u>	44. <u>4</u>	45. <u>175</u>	46. <u>1</u>	47. <u>1</u>	48. <u>00</u>
5th	49. <u>1</u>	50. <u>7</u>	51. <u>9</u>	52. <u>04</u>	53. <u>02</u>	54. <u>1</u>	55. <u>1</u>	56. <u>170</u>	57. <u>1</u>	58. <u>1</u>	59. <u>00</u>
6th	60. <u>1</u>	61. <u>4</u>	62. <u>4</u>	63. <u>10</u>	64. <u>06</u>	65. <u>4</u>	66. <u>4</u>	67. <u>175</u>	68. <u>1</u>	69. <u>1</u>	70. <u>00</u>
7th	71. <u>1</u>	72. <u>4</u>	73. <u>2</u>	74. <u>02</u>	75. <u>10</u>	76. <u>5</u>	77. <u>4</u>	78. <u>175</u>	79. <u>1</u>	80. <u>1</u>	81. <u>00</u>
8th	82. <u>1</u>	83. <u>4</u>	84. <u>4</u>	85. <u>14</u>	86. <u>10</u>	87. <u>4</u>	88. <u>3</u>	89. <u>175</u>	90. <u>1</u>	91. <u>1</u>	92. <u>00</u>
9th	93. <u>1</u>	94. <u>5</u>	95. <u>4</u>	96. <u>18</u>	97. <u>10</u>	98. <u>2</u>	99. <u>1</u>	100. <u>175</u>	101. <u>1</u>	102. <u>1</u>	103. <u>00</u>
10th	104. <u>1</u>	105. <u>5</u>	106. <u>4</u>	107. <u>18</u>	108. <u>22</u>	109. <u>2</u>	110. <u>2</u>	111. <u>175</u>	112. <u>1</u>	113. <u>1</u>	114. <u>00</u>

OCCUPANT INJURY DATA

A.I.S. - 90

Source of Injury Data	A.I.S. - 90					Aspect	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number	
	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity						
11th	<u>1</u>	<u>2</u>	<u>9</u>	<u>04</u>	<u>02</u>	<u>1</u>	<u>7</u>	<u>170</u>	<u>1</u>	<u>1</u>	<u>00</u>
12th	<u>1</u>	<u>2</u>	<u>9</u>	<u>02</u>	<u>02</u>	<u>1</u>	<u>2</u>	<u>170</u>	<u>1</u>	<u>1</u>	<u>00</u>
13th	<u>1</u>	<u>2</u>	<u>9</u>	<u>02</u>	<u>02</u>	<u>1</u>	<u>4</u>	<u>170</u>	<u>1</u>	<u>1</u>	<u>00</u>
14th	<u>1</u>	<u>1</u>	<u>9</u>	<u>04</u>	<u>02</u>	<u>1</u>	<u>0</u>	<u>054</u>	<u>2</u>	<u>1</u>	<u>00</u>
15th	<u>1</u>	<u>1</u>	<u>9</u>	<u>02</u>	<u>02</u>	<u>1</u>	<u>0</u>	<u>054</u>	<u>2</u>	<u>1</u>	<u>00</u>
16th	<u>1</u>	<u>1</u>	<u>9</u>	<u>04</u>	<u>02</u>	<u>1</u>	<u>6</u>	<u>054</u>	<u>2</u>	<u>1</u>	<u>00</u>
17th	<u>1</u>	<u>3</u>	<u>9</u>	<u>04</u>	<u>02</u>	<u>1</u>	<u>5</u>	<u>170</u>	<u>1</u>	<u>1</u>	<u>00</u>
18th	<u>1</u>	<u>3</u>	<u>9</u>	<u>02</u>	<u>02</u>	<u>1</u>	<u>5</u>	<u>170</u>	<u>1</u>	<u>1</u>	<u>00</u>
19th	<u>1</u>	<u>5</u>	<u>4</u>	<u>02</u>	<u>10</u>	<u>1</u>	<u>9</u>	<u>170</u> <u>175</u>	<u>1</u>	<u>1</u>	<u>00</u>
20th	<u>1</u>	<u>4</u>	<u>9</u>	<u>04</u>	<u>02</u>	<u>1</u>	<u>4</u>	<u>175</u>	<u>1</u>	<u>1</u>	<u>00</u>
21st	<u>1</u>	<u>5</u>	<u>9</u>	<u>04</u>	<u>02</u>	<u>1</u>	<u>7</u>	<u>175</u> <u>170</u>	<u>1</u>	<u>1</u>	<u>00</u>
22nd	<u>1</u>	<u>2</u>	<u>9</u>	<u>02</u>	<u>02</u>	<u>1</u>	<u>8</u>	<u>170</u>	<u>1</u>	<u>1</u>	<u>00</u>
23rd	<u>1</u>	<u>4</u>	<u>9</u>	<u>02</u>	<u>02</u>	<u>1</u>	<u>2</u>	<u>170</u> <u>175</u>	<u>1</u>	<u>1</u>	<u>00</u>
24th	<u>1</u>	<u>4</u>	<u>9</u>	<u>04</u>	<u>02</u>	<u>1</u>	<u>1</u>	<u>170</u> <u>175</u>	<u>1</u>	<u>1</u>	<u>00</u>
25th	<u>1</u>	<u>7</u>	<u>9</u>	<u>04</u>	<u>02</u>	<u>1</u>	<u>2</u>	<u>170</u>	<u>1</u>	<u>1</u>	<u>00</u>

OCCUPANT INJURY DATA SUPPLEMENT

Source of Injury Data	Body Region	A.I.S. - 90				Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number			
		Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity				Aspect		
26	1	8	9	04	02	1	1	004	2	1	00
27	1	8	9	02	02	1	1	004	2	1	00
28	1	8	9	04	02	1	1	004	2	1	00
29	1	8	9	04	02	1	2	004	2	1	00
30	1	7	9	06	02	1	2	170	2	1	00
31	1	7	9	02	02	1	2	170	2	1	00
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
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—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
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—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—

Body Region

Level of Injury

Aspect

- (1) Head
- (2) Face
- (3) Neck
- (4) Thorax
- (5) Abdomen
- (6) Spine
- (7) Upper Extremity
- (8) Lower Extremity
- (9) Unspecified

Vessels, Nerves, Organs.
Bones, Joints are assigned
consecutive two digit
numbers beginning with
02.

The exceptions to this rule apply to:

Specific injuries are assigned consecutive two-digit numbers beginning with 02.

To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.

- (1) Right
- (2) Left
- (3) Bilateral
- (4) Central
- (5) Anterior
- (6) Posterior
- (7) Superior
- (8) Inferior
- (9) Unknown
- (0) Whole region

Type of Anatomic Structure

Whole Area

- (1) Whole Area
- (2) Vessels
- (3) Nerves
- (4) Organs (includes Muscles/ligaments)
- (5) Skeletal (includes joints)
- (6) Head - LOC
- (9) Skin

- (02) Skin - Abrasion
(04) Skin - Contusion
(06) Skin - Laceration
(08) Skin - Avulsion
(10) Amputation
(20) Burn
(30) Crush
(40) Degloving
(50) Injury - NFS
(90) Trauma, other than mechanical

Head - LOC

- LOC**
(02) Length of LOC
(04) Level
(06) of
(08) Consciousness
(10) Concussion

Spine

- (02) Cervical
(04) Thoracic
(06) Lumbar

Abbreviated Injury Scale

- (1) Minor Injury
- (2) Moderate Injury
- (3) Serious Injury
- (4) Severe Injury
- (5) Critical Injury
- (6) Maximum
(untreatable)
- (7) Injured, unknown
severity

SOURCE OF INJURY DATA

INJURY SOURCE

DIRECT/INDIRECT INJURY

CONFIDENCE LEVEL

OFFICIAL RECORDS

- (1) Autopsy records with or without hospital/medical records
- (2) Hospital/medical records other than emergency room (e.g., discharge summary)
- (3) Emergency room records only (including associated X-rays or other lab reports)
- (4) Private physician, walk-in or emergency clinic

UNOFFICIAL RECORDS

- (5) Lay coroner report
(6) E.M.S. personnel
(7) Interviewee
(8) Other source (specify):
(9) Police

- (1) Certain
(2) Probable
(3) Possible
(9) Unknown

- (1) Direct contact injury
(2) Indirect contact injury
(3) Noncontact injury
(7) Injured, unknown source

INJURY SOURCES

FRONT

- (001) Windshield
- (002) Mirror
- (003) Sunvisor
- (004) Steering wheel rim
- (005) Steering wheel hub/spoke
- (006) Steering wheel (combination of codes 004 and 005)
- (007) Steering column, transmission selector lever, other attachment
- (008) Cellular telephone or CB radio
- (009) Add on equipment (e.g., tape deck, air conditioner)
- (010) Left instrument panel and below
- (011) Center instrument panel and below
- (012) Right instrument panel and below
- (013) Glove compartment door
- (014) Knee bolster
- (015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (017) Windshield reinforced by exterior object (specify): _____
- (019) Other front object (specify): _____

LEFT SIDE

- (051) Left side interior surface, excluding hardware or armrests
- (052) Left side hardware or armrest
- (053) Left A (A1/A2)-pillar
- (054) Left B-pillar
- (055) Other left pillar (specify): _____
- (056) Left side window glass
- (057) Left side window frame
- (058) Left side window sill
- (059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (060) Other left side object (specify): _____

RIGHT SIDE

- (101) Right side interior surface, excluding hardware or armrests

- (102) Right side hardware or armrest
- (103) Right A (A1/A2)-pillar
- (104) Right B-pillar
- (105) Other right pillar (specify): _____
- (106) Right side window glass
- (107) Right side window frame
- (108) Right side window sill
- (109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (110) Other right side object (specify): _____

INTERIOR

- (151) Seat, back support
- (152) Belt restraint webbing/buckle
- (153) Belt restraint B-pillar or door frame attachment point
- (154) Other restraint system component (specify): _____
- (155) Head restraint system
- (160) Other occupants (specify): _____
- (161) Interior loose objects
- (162) Child safety seat (specify): _____
- (163) Other interior object (specify): _____

AIR BAG

- (170) Air bag-driver side
- (171) Air bag-driver side and eyewear
- (172) Air bag-driver side and jewelry
- (173) Air bag-driver side and object held
- (174) Air bag-driver side and object in mouth
- (175) Air bag compartment cover-driver side
- (176) Air bag compartment cover-driver side and eyewear
- (177) Air bag compartment cover-driver side and jewelry
- (178) Air bag compartment cover-driver side and object held
- (179) Air bag compartment cover-driver side and object in mouth
- (180) Air bag-passenger side
- (181) Air bag-passenger side and eyewear
- (182) Air bag-passenger side and jewelry

- (183) Air bag-passenger side and object held
- (184) Air bag-passenger side and object in mouth
- (185) Air bag compartment cover-passenger side
- (186) Air bag compartment cover-passenger side and eyewear
- (187) Air bag compartment cover-passenger side and jewelry
- (188) Air bag compartment cover-passenger side and object held
- (189) Air bag compartment cover-passenger side and object in mouth
- (190) Other air bag (specify): _____
- (195) Other air bag compartment cover (specify): _____

ROOF

- (201) Front header
- (202) Rear header
- (203) Roof left side rail
- (204) Roof right side rail
- (205) Roof or convertible top

FLOOR

- (251) Floor (including toe pan)
- (252) Floor or console mounted transmission lever, including console
- (253) Parking brake handle
- (254) Foot controls including parking brake

REAR

- (301) Backlight (rear window)
- (302) Backlight storage rack, door, etc.
- (303) Other rear object (specify): _____

ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT

- (401) Hand controls for braking/acceleration
- (402) Steering control devices (attached to OEM steering wheel)
- (403) Steering knob attached to steering wheel
- (405) Replacement steering wheel (i.e., reduced diameter)
- (406) Joy stick steering controls
- (407) Wheelchair tie-downs
- (408) Modification to seat belts, (specify): _____
- (409) Additional or relocated switches, (specify): _____
- (410) Raised roof

- (411) Wall mounted head rest (used behind wheel chair)
- (412) Other adaptive device (specify): _____

EXTERIOR of OCCUPANT'S VEHICLE

- (451) Hood
- (452) Outside hardware (e.g., outside mirror, antenna)
- (453) Other exterior surface or tires (specify): _____
- (454) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE

- (501) Front bumper
- (502) Hood edge
- (503) Other front of vehicle (specify): _____
- (504) Hood
- (505) Hood ornament
- (506) Windshield, roof rail, A-pillar
- (507) Side surface
- (508) Side mirrors
- (509) Other side protrusions (specify): _____
- (510) Rear surface
- (511) Undercarriage
- (512) Tires and wheels
- (513) Other exterior of other motor vehicle (specify): _____
- (514) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

- (551) Ground
- (598) Other vehicle or object (specify): _____
- (599) Unknown vehicle or object

NONCONTACT INJURY

- (601) Fire in vehicle
- (602) Flying glass
- (603) Other noncontact injury source (specify): _____
- (604) Air bag exhaust gases
- (697) Injured, unknown source